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THE AMERICAN ELEVATOR AND GRAIN TRADE.

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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY, {
(INCORPORATED.)

VOL. XVI.

CHICAGO, ILLINOIS, DECEMBER 15, 1897.

No. 6.

{ ONE DOLLAR PER ANNUM.
SINGLE COPY, TEN CENTS.

Excelsior Grain-Cleaning Machinery

CONSISTING OF THE

EXCELSIOR Dustless Warehouse and Elevator Separator,

EXCELSIOR Oat Clipper, EXCELSIOR Separator and Grader,

EXCELSIOR "Combined Grain Machine."

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GENERAL MILL AND ELEVATOR SUPPLIES.

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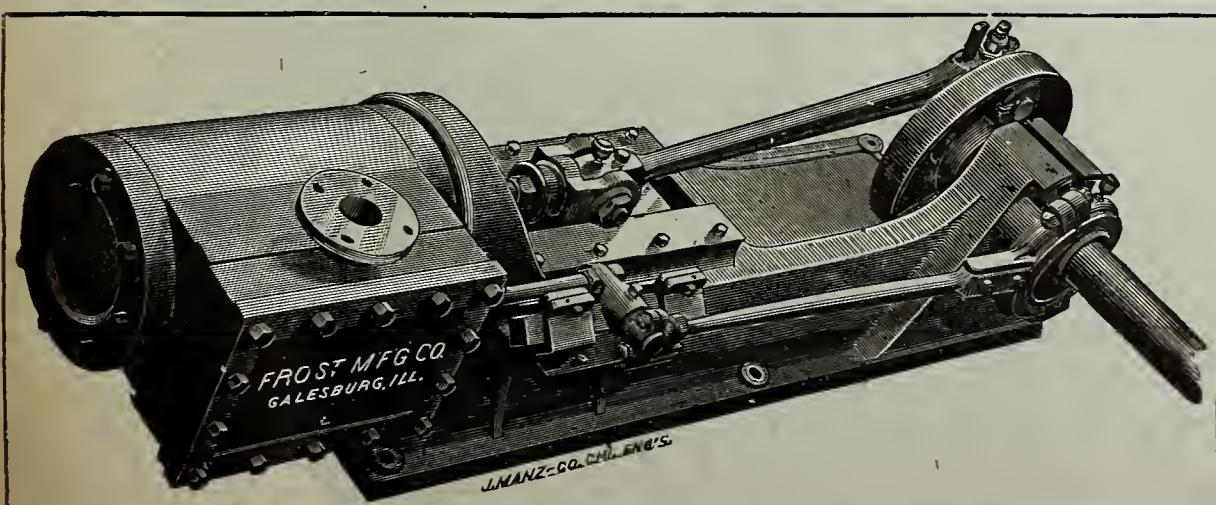
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Every Description,
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THE PAIN-E-ELLIS GRAIN DRIER

Several Patents Pending. \$50 Reward for First Notice of Infringement.

NOTE THESE RESULTS:

No grade corn containing .07 $\frac{1}{2}$ per ct. excess dampness dried and ventilated in 55 minutes. No grade wheat containing .07 $\frac{1}{2}$ per ct. excess dampness dried and ventilated in 60 minutes.

A GRAIN DRIER THAT WILL DRY.

OUR apparatus consists of a drying box or bin with alternate grain and air spaces arranged perpendicularly, and a steam coil and fan for driving hot and then cold air through the grain. Must and other odors are almost entirely eliminated by this process. The drier as well as the fan and steam coil are self-contained so that the entire apparatus can easily be set up and connected with a steam plant. We are prepared to furnish driers of 50, 100 and 200 bushels' capacity, and as they can, as a rule, be filled and emptied hourly, their capacity ranges from 1,200 to 4,800 bushels of dry grain in twenty-four hours. Larger driers will be constructed when required. The steam power required is about ten horse to every hundred bushels' capacity.

We will sell the apparatus at the cost of construction and charge a royalty for its operation; or will retain ownership and charge an increased royalty.

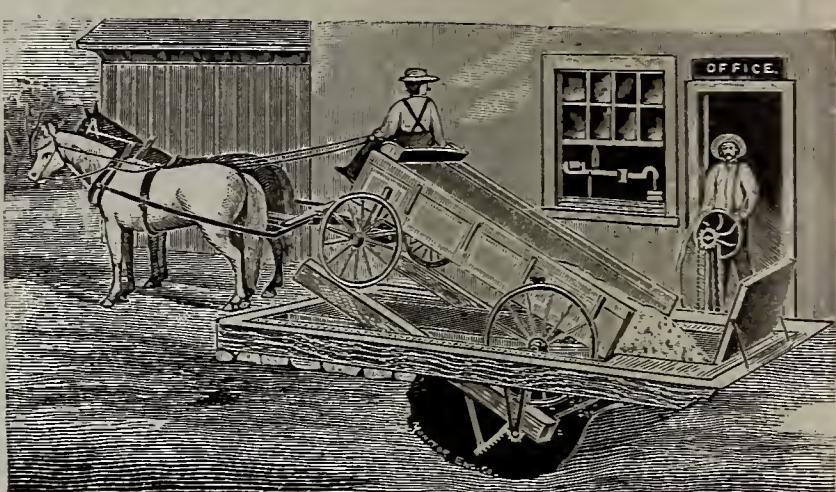
Every country elevator should be equipped with one of these driers so that grain may be sent to market in safe and salable condition.

For terms and further information write

PAIN-E-ELLIS GRAIN DRIER COMPANY,

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Gold Dollars



At FIFTY CENTS apiece are CHEAP, but they do not represent a better investment than we offer the "elevator and grain trade" in our

Controllable Wagon Dump.

WINCHESTER, ILL., February 4, 1896.

MESSRS. SAVAGE & LOVE CO., Rockford, Ill.

GENTLEMEN:—Your favor of the 28th ult. received and noted. Last July I put one of your Controllable Wagon Dumps in a Fairbanks, Morse & Co.'s 22-ft. scale, and it has given me entire satisfaction in every respect. In this locality the bulk of grain is as yet handled in sacks, and by tipping the Dump about one-half it makes a nice slant, making it very easy to pull the sacks to back end of wagon, where strings are cut and grain runs out into bin below. Every farmer, without exception, speaks in glowing terms of the merits of this Dump. In unloading loose grain from wagon there is no dump that will equal yours in being easily handled and always under control of operator. No scaring horses, no dropping of wagon and no noise. I consider a grain elevator incomplete without the Savage & Love Controllable Wagon Dumps.

Yours truly,

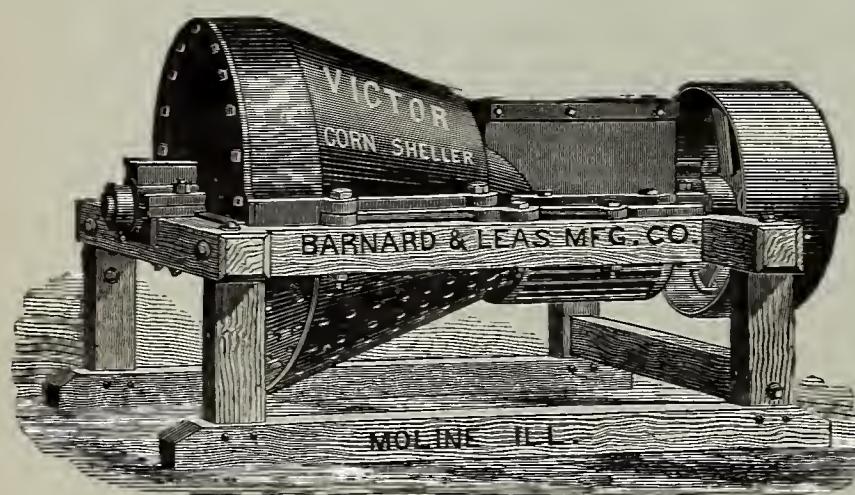
M. C. WOODWORTH.

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THE SAVAGE & LOVE CO., Rockford, Ill.

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CORN, CORN, CORN.

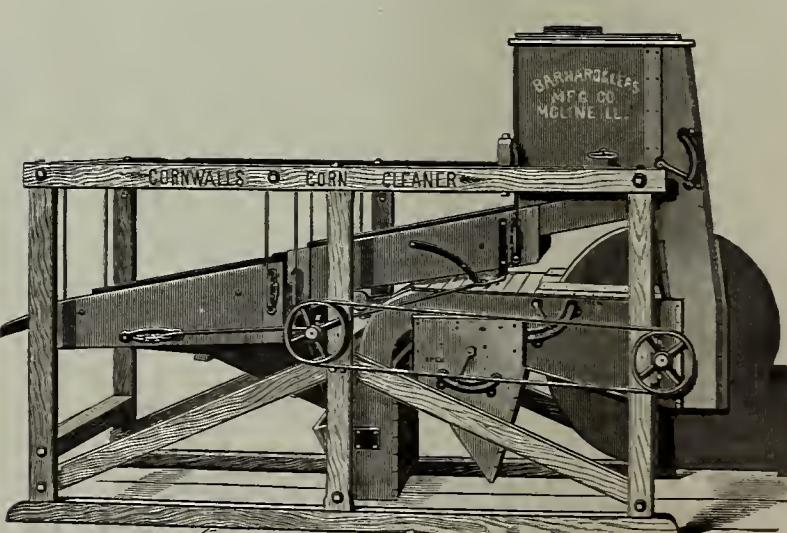


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IS THE BEST SCOURER IN USE.

Of Large Capacity. It is also the Best Oat Clipper in Use.

Write for further information to



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THE

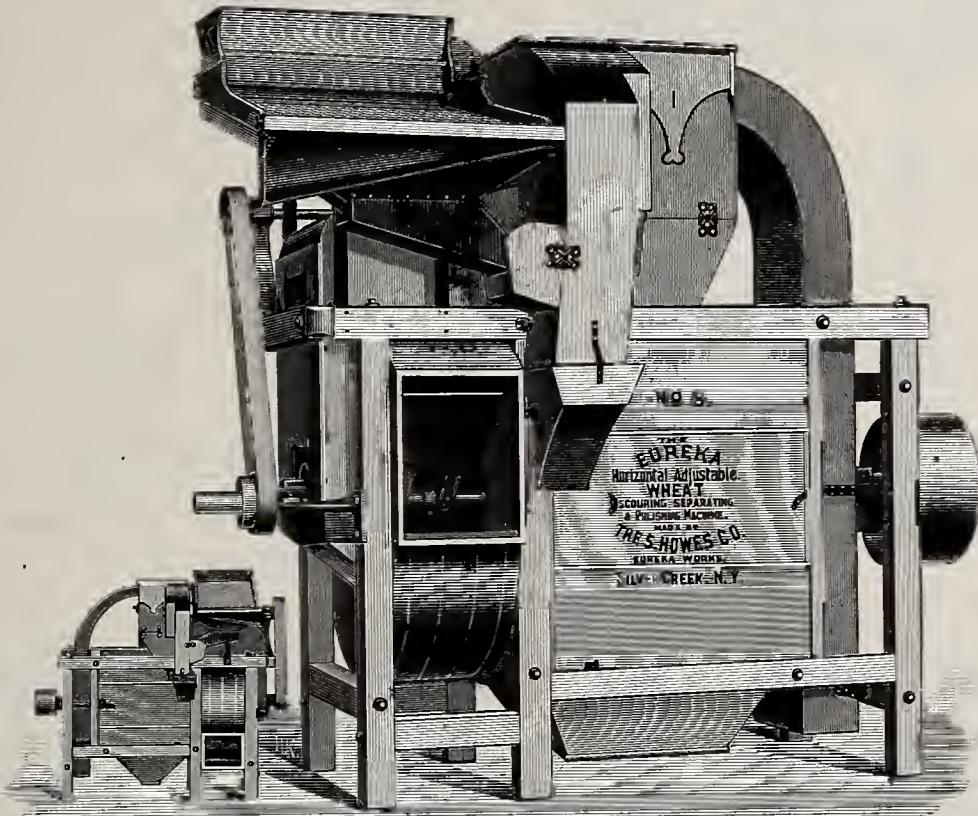
"Eureka" Special Horizontal Close Scourer

Is specially adapted for handling

GROWN OR SMUTTY WHEAT.

A large number have been sold for this purpose and are giving the best of satisfaction.

Built in Nine Sizes—Capacities from 5 Bus. to 1,000 Bus. per Hour.



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A. A. CUNNINGHAM.

SNEATH & CUNNINGHAM,
GRAIN AND SEEDS.

THE S. HOWES CO.,
Silver Creek, N. Y.

Tiffin, Ohio, Oct. 5, 1896.

Dear Sirs: Your favor of the 3d received and noted. We enclose you our check for \$—, in payment of your No. 2½ Eureka Close Scourer, which we bought of you for handling grown wheat. It is giving the best of satisfaction. In fact, we could not get along without it this season.

Wishing you the best of success, as your machine deserves, we are, Yours, SNEATH & CUNNINGHAM.

S. J. BROWN,
BUYER AND SHIPPER OF GRAIN.

Liberty, Neb., Sept. 30, 1896.

Silver Creek, N. Y.

Dear Sirs: Some time ago I wrote you about my No. 4 Eureka Oat Clipper. The little difficulty I had with it was overcome before I got your reply. It is one of the finest machines I have ever had anything to do with. It has made me one thousand dollars this season on leggy or grown wheat. It does the work in the best possible manner, and with one operation. It raises the grade and weight of the wheat to our entire satisfaction. Anyone having trouble this season with leggy or grown wheat can add nothing to their elevator or mill that will give them as good satisfaction as your EUREKA machines. Yours very truly, S. J. BROWN.

For particulars of this machine, as well as the best Warehouse and Elevator Separators on earth, write

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"Eureka Works," Silver Creek, N. Y.

Successors to Howes, Babcock & Co., Howes, Babcock & Ewell, Howes & Ewell, S. Howes,

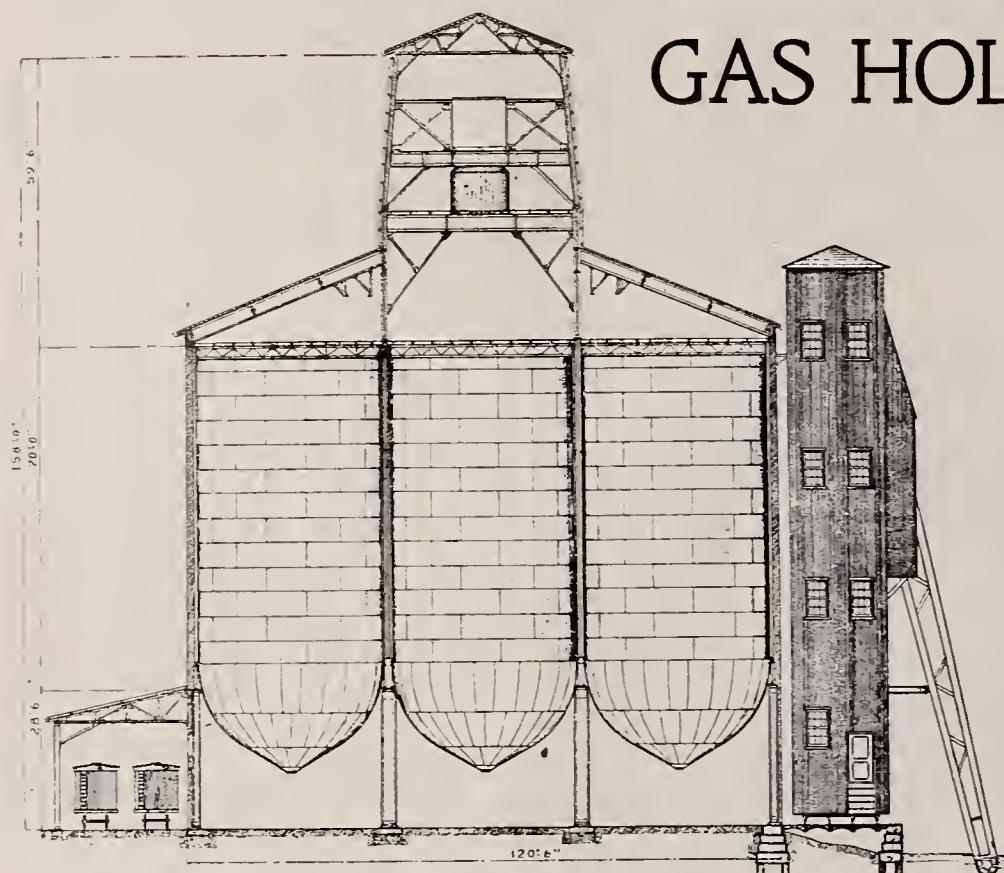
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STEEL BUILDINGS, STEEL STACKS AND
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FOR USE IN

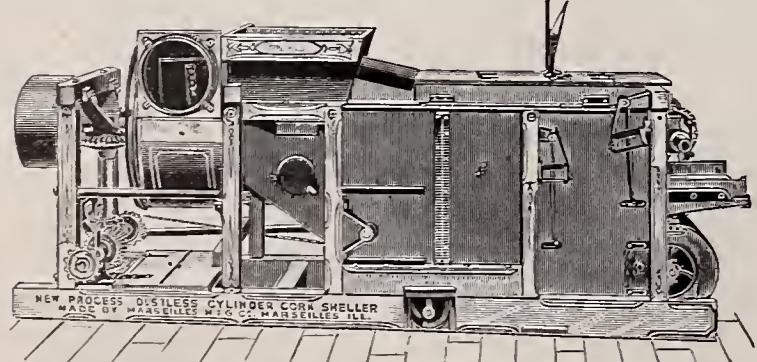
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ACCURATE AND RELIABLE AT ALL TIMES. SCALES SENT ON 30 DAYS' TRIAL.
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Specially built for
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A NEW PROCESS OF SHELLING CORN.

Some of the special features are: An Adjustable Cylinder, White Iron Shelling Parts, Spiral Shelling Head, Double Suction and Blast Fans, Positive Screw Feed, no Clogging, no Grinding of Corn. Cobs Left in Good Shape for Fuel, no Waste of Grain or Power.

We make over 100 styles and sizes of Corn Shellers and can meet all demands. Address

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150 H. P. Outdoor Rope Drive Installed
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OF ANY HORSE POWER DESIGNED
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SHAFTINGS, PULLEYS, GEARINGS, SHAFT
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GRAIN TRIPPERS, CAR MOVERS, GRAIN
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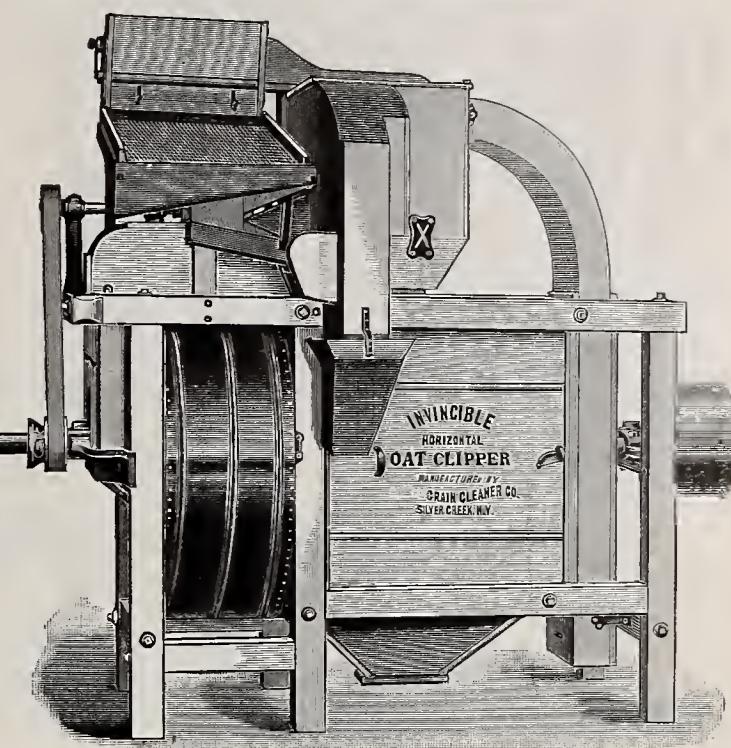
ENGINEERS, FOUNDERS, MACHINISTS,
CHICAGO, U. S. A.

The Invincible Oat Clipper

It is the strongest and best constructed machine on the market. Will do more and better work with the least waste than any other. It contains many important features not found in any other clipper. It has been adopted by some of the most progressive handlers of oats and is pronounced by them superior to any other machine they have ever used.

By our PATENTED PROCESS of introducing air to the cylinder we remove instantly all loosened impurities and there is no chance for the dirt and stuff to lodge and choke.

If interested, we shall be pleased to supply you with a list of users. If you adopt the INVINCIBLE Oat Clipper you will have no trouble. WE POSITIVELY GUARANTEE IT THE BEST MADE and that you will get the best results from its use.



Invincible Grain Cleaner Co., INVINCIBLE WORKS, SILVER CREEK, N. Y.

Remember that we make Separators, the best in the market.

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Price unchanged. Leather and Gilt, \$2.00. Cloth binding, \$1.50.

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Improved Trucks
Combination Truck and Step-Ladder, and Single Trucks, Sack Holders and Stand.
Best Boiler Compound recipe, the right to manufacture and use, with instructions. Price..... \$1.00
Combination Truck and Step-Ladder and Single Truck for. \$3.00
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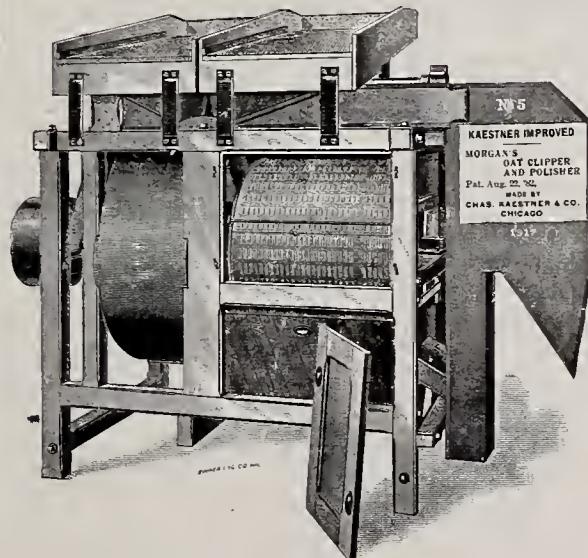
THE KAESTNER Morgan Improved Oat Clipper.

OVER 1,000 IN ACTUAL USE BY THE LARGEST CLIPPERS IN THE WORLD.

"No machine so good as the

MORGAN"

Is what over 1,000 users of the "Kaestner Improved Morgan Oat Clipper" say of it.



Can you make a mistake in buying the "*Morgan*" after such evidence?

WE CLAIM for this machine that it will clip more oats with less power, and do more even and better work, than any other Oat Clipper on the market.

WE CAN SUBSTANTIATE THIS CLAIM.

We also build the Kaestner-Morgan Improved for scouring Wheat, Barley and other Grains, and a special machine for handling Malt Barley. Write us what you want to do, stating desired capacity, and machines will be built to suit the work.

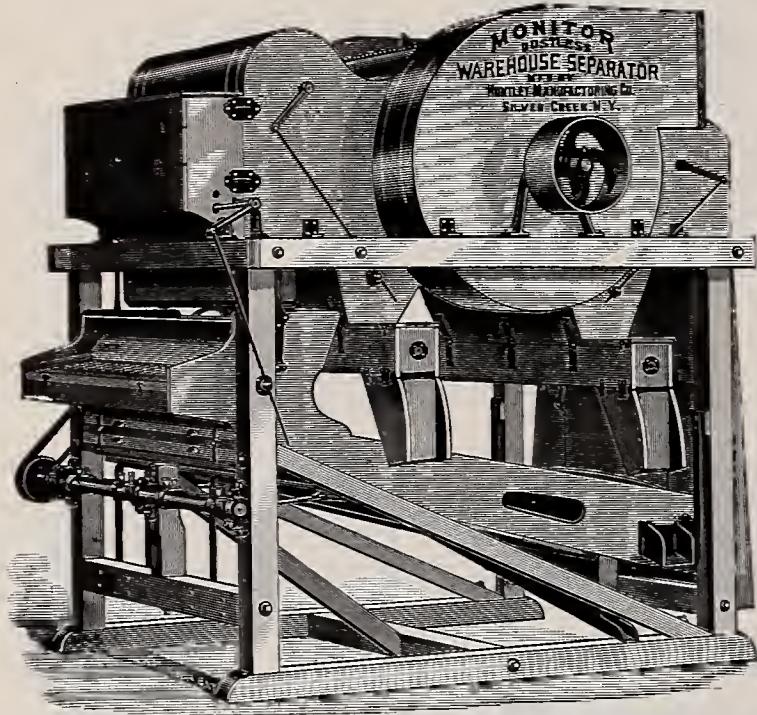
Chas. Kaestner & Co.,
ENGINEERS, FOUNDERS AND MACHINISTS,
MANUFACTURERS OF POWER TRANSMISSION MACHINERY,

241-269 South Jefferson St., - - - CHICAGO, ILL.

STANDARD THE WORLD OVER.

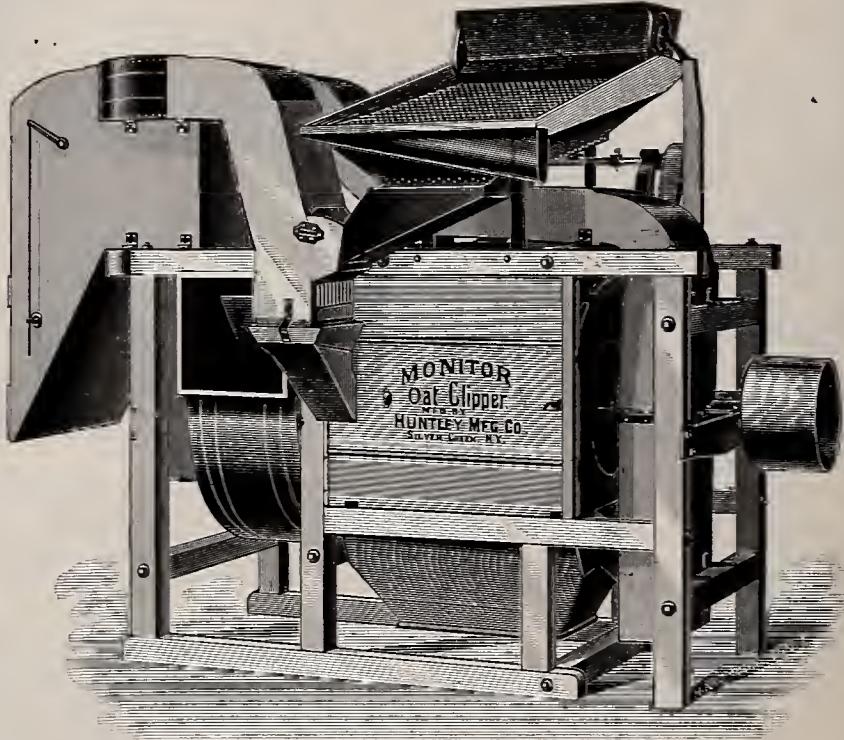
Monitor Grain Cleaners, Monitor Oat Clippers.

THERE ARE MORE MONITOR MACHINES IN USE, IN THE LEADING MODERN CLEANING ELEVATORS, THAN ALL OTHER MAKES COMBINED.



During the last six years all of the leading elevators built in the United States, with but two exceptions, adopted the "Monitor."

COMMENT IS UNNECESSARY.



THE MONITOR OAT CLIPPERS have taken their proper place—at the head.

The best constructed clipper made. More capacity and better work than any other. HIGH GRADE IN EVERY RESPECT.

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Silver Creek, N. Y.



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Designed and erected by D. A. Robinson.

GREAT NORTHERN ELEVATOR AT BUFFALO, N. Y.

THE GREAT NORTHERN ELEVATOR AT BUFFALO, N. Y.

The sales of grain at Buffalo, N. Y., when compared with the sales in the other grain centers of the country are not large, but the amount of grain transferred from lake vessels to canal boats and cars at Buffalo is larger than the amount of grain passing through any other market Chicago, alone

to grade. The foundation is composed of 198 stone piers, built 8 feet 6 inches high to grade. The exterior of the building looks like any ordinary elevator constructed of wood. The outside of the main building is bricked up to the eaves with a 24-inch brick wall laid in cement. The cupola which extends the entire length of the elevator is entirely of iron. The girders are what is known as the plate girder construction and the floors are all quarter-inch

plate and angle columns. Each one of these large bins has a capacity of 80,000 bushels and the smaller bins above mentioned have a capacity of about 15,000 bushels each. There are nine shipping bins of 3,000 bushels' capacity on the river side of the elevator for loading canal boats and eighteen 1,500 bushel bins on the land side of the elevator for loading cars. At the south end of the elevator facing the ship, there are four sets of shipping bins and scales arranged for loading canal boats. There are four 1,000-bushel bins in the north end of the elevator, arranged for loading teams, cars or canal boats.

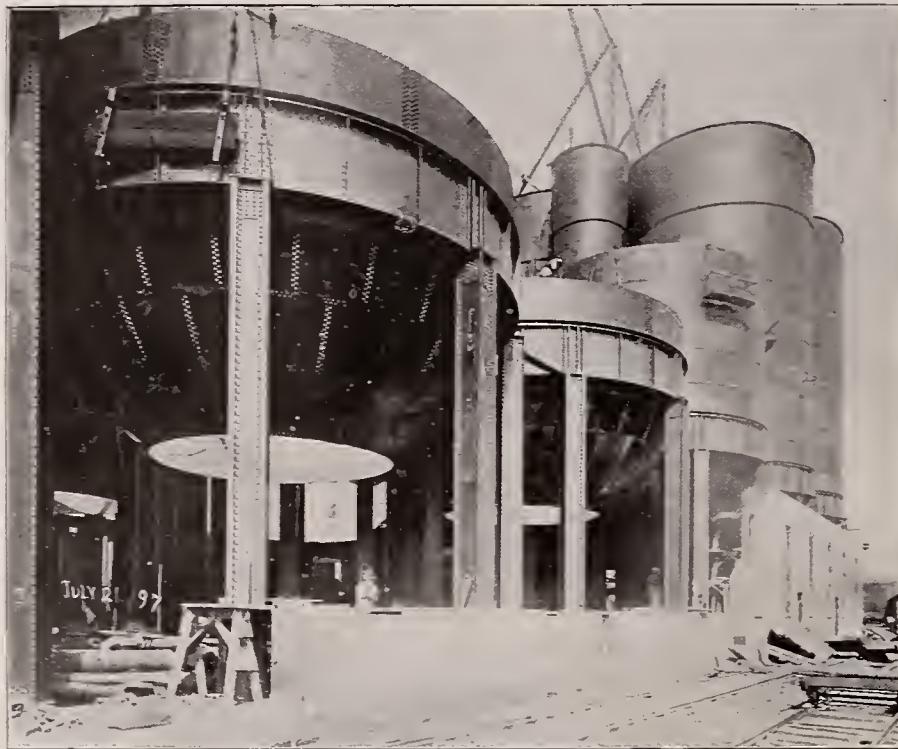
The elevator has ten elevator legs, each of 20,000 bushels' elevating capacity per hour. Each one of these legs is driven by a 100-horse power electric motor. The power is transmitted from the motor to the elevator leg with Robinson's Patent Independent Leg Rope Drive System.

The elevator is equipped with ten 1,400-bushel Fairbanks Hopper Scales for weighing the grain from vessels to cars. The scale hoppers are built of iron, 14 feet high and 14 feet in diameter, with cone-shaped bottoms. The grain is distributed from these scales to the various bins with Robinson's system of double jointed anti-friction distributing spouts, one spout being provided for each hopper.

There are four No. 9 Monitor Separators furnished by the Huntley Manufacturing Co. in the second story of the cupola. The grain is distributed from these cleaners to the various bins with Robinson's Distributing Spouts. The garners over the scale hoppers and the cleaners each have a capacity of 1,500 bushels.

There are two 60-inch reversible belt conveyors on the spout floor of the cupola, equipped with concentrators, portable feed hoppers and four rolling self-moving trippers furnished by the Dodge Manufacturing Co. These are the largest belt conveyors in the world, each having a capacity of 40,000 bushels per hour.

An electric elevator, located in one end of the main elevator, runs from the first floor to the scale floor. There are also iron stairways from the ground floor to the top floor at each end of the elevator. The elevator is equipped with a speaking tube to



TANKS IN COURSE OF CONSTRUCTION AT GREAT NORTHERN ELEVATOR, BUFFALO, N. Y.

excepted. Being the eastern terminus of many lake steamship lines, most of the grain shipped from the Western lake ports is taken to Buffalo. Much of the grain shipped from Canadian ports, which is bound for foreign markets, is also sent in bond via Buffalo.

If the great lakes were open to navigation the year around all the surplus grain of the Northwest and of the states east and north of the Missouri River would be shipped by water from the western lake ports; the trunk lines would carry very little if any grain from the western lake ports to the Atlantic seaboard. During the season of navigation just closed Buffalo has received more grain than ever before and even more grain than has been received heretofore in the form of flour and grain. From the opening of navigation to November 1, the receipts of grain at Buffalo amounted to 157,450,525 bushels, which exceeds the receipts for any like previous period by over 45,000,000 bushels.

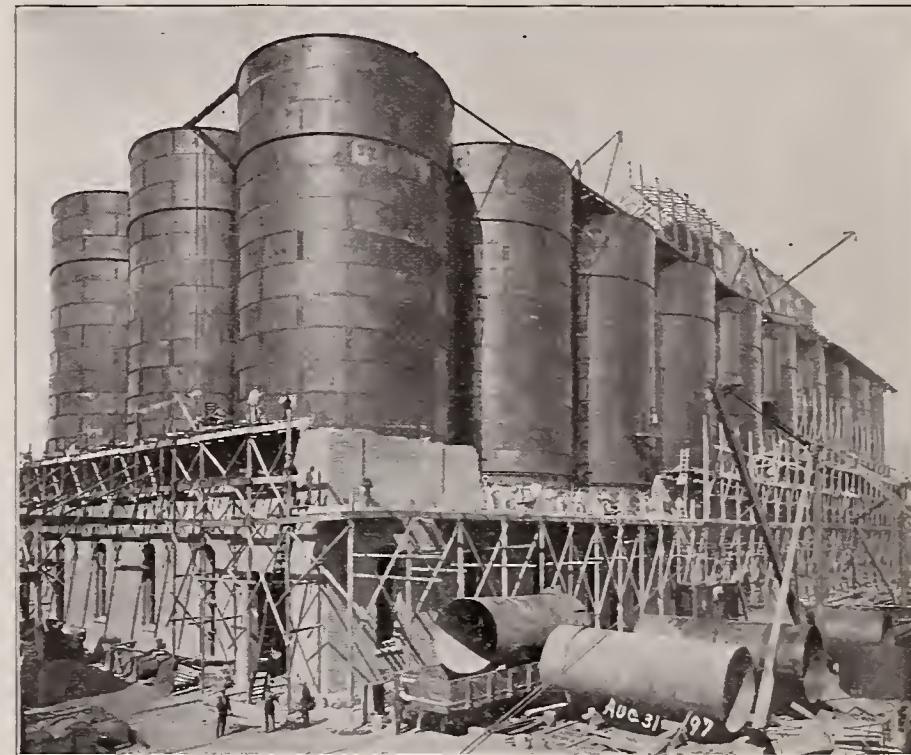
With its new elevators all in full working order next season Buffalo can easily handle even more grain than it has this season. The grain storage capacity of the port has been increased over 5,000,000 bushels and the handling capacity fully 1,000,000 bushels more. The most remarkable addition to Buffalo's list of elevators is the Great Northern elevator, designed and built by the well-known elevator architect and engineer, D. A. Robinson, of Chicago.

The Great Northern Elevator is a decided departure from anything that has been attempted heretofore. Its style of construction is a combination of the tank system with the exterior form of a crib elevator, the 48 steel tanks being encased by a brick building and the whole capped by a cupola extending the full length of the building. Not only is the style of construction novel, but the elevator contains many new ideas, and departures have been made in the driving of the machinery, the removing of dust, the division of bins, and the spouting to and from bins.

The Great Northern Elevator is located on the City Ship Canal in Buffalo. It has a water frontage of 395 feet 6 inches and is 120 feet 3 inches wide. The elevator foundation is of piling, stone and white oak grillage. There are 6,000 piles 50 feet long resting on solid rock; on top of these piles cut off at datum is white oak grillage. From the grillage

leveled steel plates riveted on 6-inch I beams. It has a storage capacity of 3,000,000 bushels, a receiving capacity from boats of 400,000 bushels per day of ten hours, and an equal shipping capacity by canal boats or cars at the same time.

The elevator bins, columns, elevator legs, shipping bins, scale hoppers, scale frames, garners and spouting are entirely of steel. There are thirty bins



CONSTRUCTING CUPOLA AND BRICK VENEER, GREAT NORTHERN ELEVATOR, BUFFALO, N. Y.

38 feet in diameter and 70 feet high and eight bins 15 feet 6 inches in diameter and 70 feet 6 inches high. These bins rest on columns 38 feet long, and all have hemispherical bottoms with no angles less than 30 degrees, so grain will run out freely. Eight of the thirty large bins are subdivided horizontally into four compartments each, by using a series of hemispherical subdivisions. The hemispherical bottom bins are supported on the stone piers from the circular girders around the side of the bins on 198

each elevator leg, also electric bells and enunciators, with electric bells from the work floor to the scale floor and from the elevator legs to the electric room. The elevator is also equipped with telephones located in various parts of the building; in the office on the ground floor, the oil room, the electric room and one in each of the marine towers.

The equipment of pneumatic sweepers and dust collectors is said to be the most complete ever installed in a grain elevator. It is a double system of

dust collectors both up stairs and down. On the top floor of the elevator there is a double 60-inch fan which keeps the dust clear from the elevator heads and garners; there is a double 50-inch fan located on the spout floor which operates the upstair sweep-up system. On the first floor of the elevator there is located a single 70-inch fan which is connected with all the elevator legs and pits; there is also a double 45-inch fan located downstairs which

consists of two 60-inch 5-ply conveyor belts, each 800 feet long; ten 32-inch 6-ply belts, each 350 feet long, and three 19-inch 7-ply belts, each 200 feet long. Seven thousand elevator buckets 8 inches wide, 9 inches deep and 30 inches long, all made of No. 24 steel and galvanized, were used. The buckets were furnished by the Weller Manufacturing Co.

The elevator was designed by and erected under



SPOUT FLOOR OF THE GREAT NORTHERN ELEVATOR, BUFFALO, N. Y.

operates the sweep-up system. The object in using a double system is to secure economy and effectiveness. The large dust collector fans run very slowly and have only a slight pressure of air capable of handling light dust and small particles of material, whereas the fans running the sweepers run at the very high speed of 3,000 revolutions per minute and give sufficient air suction to handle pieces of lead, iron, nails, screws, or in fact anything swept into the sweep-up.

There are three portable marine towers, each with a capacity of 20,000 bushels per hour. These marine towers are constructed entirely of steel, equipped with marine legs, electric lights, 100-horse power motor, passenger elevator, spiral stairs, scale hoppers, electric signals, steam shovels and all other modern conveniences. The electricity is transmitted to these towers by the trolley system, and the towers are moved on the dock in front of the elevator, with what is known as the cable grip system, practically the same as used on street railroads.

The elevator is operated by eighteen induction type motors aggregating 1,500 horse power. The current is furnished from Niagara Falls, 22 miles away, and reaches the elevator as a 2,200 volt, three-phase alternating current. It is transformed at the elevator by 2,500 kilowatt transformers into a 450-volt, two-phase current; from the transformers the current is taken to a switchboard, upon which are mounted the switches and starting devices for the eighteen motors. All starting and stopping of motors is done at the switchboard, except the three motors in the marine towers; these motors receive the current from trolley wires, and are started and stopped at the motor. The series of signals from the various motors are so arranged that the operator at the switchboard is advised by means of electric annunciators, regarding the starting and stopping of the motors.

The steel for this elevator was purchased from the Carnegie Steel Co. by the Riter-Conley Co. of Pittsburgh, by whom it was rolled, punched, formed, framed and put in shape ready to be riveted and bolted together when it was delivered to the elevator.

The belting used in this elevator was one of the largest orders for belting ever placed. The belting

the personal supervision of D. A. Robinson, who has patents on a number of novel features first used in this house, and has applied for patents on others.

The design of this elevator is the most radical change yet made in this class of structures. The elevated hemispherical bottomed bins are strictly novel and the matter of transmitting power to the

Mr. Robinson commenced preparing the drawings, and it was handling grain at full capacity on Oct. 1, 1897, taking just six months to design, assemble all the material and equip and put this elevator in working order. This is remarkably rapid work for so gigantic an undertaking when one takes into consideration the many new ideas incorporated in it. The material that it took to construct this elevator consists of about 6,000 50-foot piles, 100,000 cubic feet of stone, 3,000,000 brick and 6,000 tons of steel. There were over 1,100 mechanics employed on the building at one time and the payroll alone amounted to over \$200,000.

Mr. Robinson, the designer and builder of the elevator, is still a young man, having been born in Minneapolis about 35 years ago. He went into the elevator business in 1880 and has followed that business ever since. He has built elevators in many of the large seaport and lakeport cities, and the aggregate capacity of the elevators which he has built in Chicago is 13,000,000 bushels. His success with this new elevator, the largest and most complete grain handling plant ever put under one roof, adds new laurels to his fame as an elevator builder.

GETTING RID OF RATS.

An unusual interest has been aroused in the destruction of rats this season because of the great number found in corncribs. The loss from this source has been considerable, to say nothing of the annoyance. If trouble in corncribs is to be avoided next year, set the buildings on posts 18 inches high, and around the top tack a strip of old tin or invert a tin pan and place it over the top of the post. This will not always keep them out, but will do much toward preventing their entrance.

Where cribs are on the ground and have been infested by these pests, a number of methods of getting rid of them, more or less successful, have been suggested. If a well-trained ferret and a good rat dog can be secured great numbers can be killed in a short time. The ferret will go into the holes under the crib and run out the rats, which can then be disposed of by means of the dog or guns. After the rats have been well cleaned out by this



TOP FLOOR OF CUPOLA, GREAT NORTHERN ELEVATOR, BUFFALO, N. Y.

various parts of the building with electricity through copper wire is very much different from the old way of using shafting, pulleys, ropes, gears and belting and is also very much more economical both in cost of maintenance and operation. The plan of supporting, anchoring and dividing the bins is claimed to excel anything that has yet been presented for the consideration of the user of small steel bins.

The work of excavating for this mammoth structure was begun April 1, 1897, and 10 days later

means they seldom return, or at least not for a long time. In closed bins, where carbon bisulphide can be used, they can be got rid of in short time. Place shallow dishes or plates on top of the grain and fill them with the liquid. It will evaporate and the vapor being heavier than air will sink, permeate the corn, displace the air and destroy all animal life—rodents as well as grain infesting insects. In using the bisulphide, remember that the vapor will explode, and all lights and fires must be kept away from the building until the gas has been diffused.

WINNIPEG'S GRAIN TRADE.

Winnipeg may be considered the largest wheat market in Canada, says the Commercial of that city. More of this cereal is handled by Winnipeg grain merchants and millers than by grain dealers in any other city in this country. The great bulk of the wheat crop of Manitoba and the Territories is handled by merchants and millers having their head offices in Winnipeg, and who are members of the Winnipeg Grain Exchange.

A number of the grain exporters and millers have lines of elevators located at country towns and villages throughout the grain-growing district, and during the grain-marketing season buyers are placed on these country markets, to purchase the grain direct from the farmers. Other merchants who have their head offices in Winnipeg do not operate any elevators at country points, and they buy grain in car lots or other quantities from smaller country dealers, who buy direct from the farmers on their own account. Quite a number of farmers also sell their grain in round lots, having first placed it in an elevator for storage. There are also grain brok-

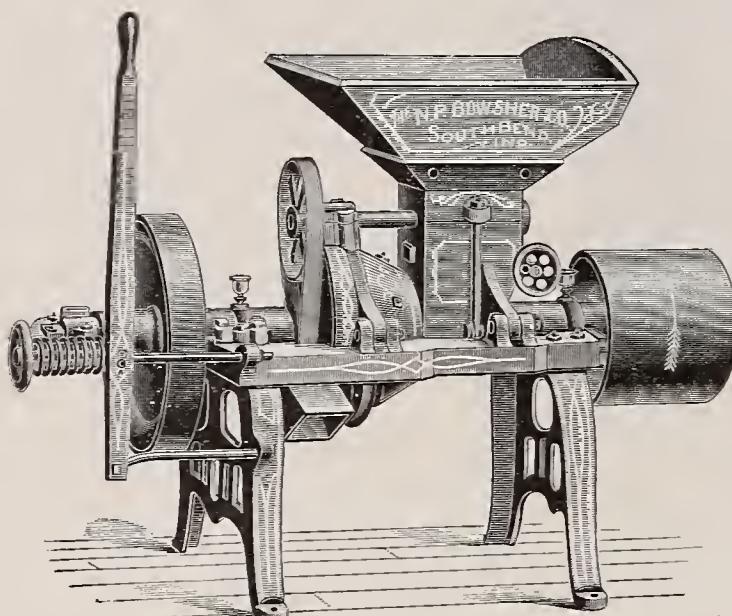
ers who sell grain on commission for farmers or dealers.

of late years grain has been handled on an exceedingly small margin. Large quantities of wheat have been handled of late on a margin of a fraction of a cent per bushel. Farmers who do not understand the commercial side of the grain question are sometimes inclined to grumble about the prices they receive for their products, but if they knew more about the trade they would not blame the local dealers for the low prices which have ruled in the markets of the world during some recent years.

BOWSHER'S IMPROVED FEED MILL.

The Bowsher Feed Mills have been on the market for eight years. From time to time new styles and sizes have been brought out. The latest is known as No. 10A size, and a cut of this machine is given herewith. From 16 to 25 horse power is required to operate it. It is designed for grinding all kinds of small grain or ear corn which has first passed through a coarse crusher.

The mill has a heavy frame, ring-oiling boxes, and conical shaped grinders. The latter keeps the work



BOWSHER'S IMPROVED FEED MILL.

close to the shaft, thus insuring light running. It can be allowed to run empty without injury to the grinders. Another advantage is the light pressure on the step box as compared with other forms of construction. The mill can be quickly opened for inspection.

A mill almost identical with this, except that it is smaller, is known as No. 7A, and requires from 8 to 12 horse power.

Descriptive circulars may be had by addressing a request to the manufacturer, the N. P. Bowsher Co., South Bend, Ind.

SHRINKAGE OF GRAIN IN STORAGE.

There can be no question that grain shrinks, so that there is always loss in storing it beyond that of the interest on what it would fetch in fall. Who can tell just how much shrinkage there is in any specified crop? Corn is the grain that probably shrinks most, though as it grows less in bulk its nutritive value is not lessened. It may be even possible, if the cob be still damp, that some nutritive goes from cob to the grain while it is in the crib. The moist corn cob has some sweetness. That of the dried cob is only woody fiber and potash. We once measured 650 bushels of corn in the ear into a crib. As we had most of it ground in the ear for feed we measured out the corn during the winter as it was taken from the mill. The loss in bushels was more than 70 bushels, and of weight still more than this. This was less decrease than we had expected. But the corn was put in when thoroughly ripened, and we began to take it to the mill to grind it before it had dried out much.—American Cultivator.

Illinois had a big crop of pop corn this year.

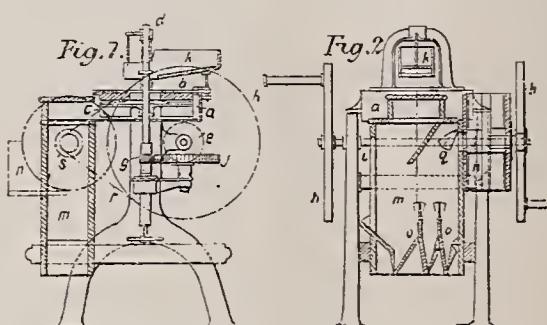
ELEVATORS IN MANITOBA.

Along the Canadian Pacific Railroad in Manitoba a prominent feature of the many towns, large and small, is the number of large grain elevators. Even the smallest have two and three, and that sometimes where there are not a dozen other buildings at the station. Their existence attests the rapid and steadily increasing growth of the grain production of the country. From Portage la Prairie west there are from two to seven or eight elevators at every station. Burnside, in the midst of a good wheat-growing country, has three. Bagot, recently burned out, had two, and this point only a few years ago was not counted on as much more than a point for the shipment of cordwood west. This industry continues, though the recent fires have destroyed some of the best woods. The cultivation of land for wheat has been slow, but it has steadily increased, and there are many fine settlements round this point.

A BRITISH RICE HULLER.

T. F. Hind and R. Lund of England have been granted a patent by the British Patent Office on the rice hulling machine illustrated herewith. Within a suitably formed chamber are arranged an upper stationary disk and a lower revolving disk, the latter being mounted on the upper end of a vertical spindle rotated through the medium of suitable speed gearing and two flywheels or pulleys, one on each side of the machine. The upper face of the revolving or lower disk is coated or roughened with cement, corundum emery, or the like, and the lower or opposite face of the stationary or upper disk carries a series of radially disposed bars or ribs of leather standing and supported edgewise between strips of wood, but so as to project beyond the said strips. The rice (or "paddy") to be hulled is fed into the space between the two disks through a central hole in the upper disk, and after being hulled between the emery and the edges of the leather ribs, finds its way past the peripheries of the disks and falls through an opening in the bottom of the disk chamber into an aspirating chamber below, where by means of a suction fan the hulls or lighter particles are separated from the heavier grains of the hulled rice.

Within chamber *a* is the upper stationary disk *b*, and the lower revolving disk *c* carried on the vertical spindle *d* supported in upper and lower bearings, and rotated through the medium of bevel gearing disposed within the rim of the toothed wheel *j*, which gears into the pinion *g*. The "paddy"



is supplied or fed into the machine by means of an ordinary form of shaking hopper *k*, through a circular opening, and after having been hulled finds its way into the aspirating chamber *m*, where, by means of the suction fan, the broken husks and dust are separated from the heavier grains of the hulled rice, which falls into the grading delivery exits *o*. These exits are filled with weighted or balanced hinged flaps. The flap valve *q*, which is adjustable from the outside, regulates the suction of the aspirating chamber. The fan is driven by the belt *r* from the flywheel.

W. W. Wilder & Son at Newton, N. H., are reported to have an elevator and grist mill located at the back of their store that is quite a novelty. A large windmill surmounts the building, and operates the machinery (occasionally), which is all automatic in its action and does not require the attention of an operative.

A NEW ORLEANS COMMISSION FIRM.

With continued additions to its elevator capacity and improved shipping, weighing and inspecting facilities the export grain trade of New Orleans has grown despite the competition of new and old ports, quarantine and unfavorable freight rates. One thing which retarded the growth of New Orleans' grain trade was the scarcity of energetic, enterprising merchants, who had the means and ability to build up a large business, and thereby increase the importance of the city as a grain center.

The improved handling facilities of the railroads and a disposition to give better service have attracted new persons to the business, and encouraged the old members of the trade to renew their efforts to enlarge the city grain trade. As the surplus of the Southwestern states increases the grain trade of the Crescent City will increase. During the season of navigation on the great lakes the railroads having terminals at Gulf ports cannot hope to divert a large portion of the surplus grain of Iowa, Nebraska, Kansas, Missouri, Illinois and Indiana to the Gulf route, but when ice closes the northern route the

tion with the Mexican National R. R., and was in turn employed by the Central R. R. of Georgia and the Louisville & Nashville R. R. With this latter road he held the position of chief clerk to the general freight agent at New Orleans for two years. In the summer of 1895 he was offered and accepted the position of bookkeeper and cashier with Geo. E. Sears & Son, and one year afterward he was admitted as a partner in this concern. In March, 1897, he branched out on his own hook and had been conducting a hay and grain business, until the present partnership was formed.

HOW TO ENLARGE THE CONSUMPTION OF CORN.

This must be done mainly through education. The people at home and abroad must be taught to eat more corn. The per capita consumption of corn in the grain is astonishingly small. How little this healthful cereal is used on the table every family knows. How few have the faintest idea of the wonderful variety of attractive, toothsome, dainty and healthful ways in which corn and corn products can be served on the table! How few realize that such dishes are one of the very cheapest as well as the best of foods! If this is true of America, how much truer is it of the masses in Great Britain and Europe, to say nothing of the famished millions of India?—Toledo Market Report.

BUYING HIS OWN WHEAT.

"If you think," said the real estate agent, as he lit a "Wheeling stoga" and tipped his chair back against the wall, "that these Kansas farmers can't figure, you are badly off. For instance, I heard one out by Great Bend figure out last week that he was buying his own wheat. He said: 'Last week I sold a bushel of wheat for 90 cents. I suppose from what Bryan says that it was shipped to India. I took that 90 cents to the drug store and bought snake medicine. The druggist made 75 cents profit. The next day the druggist went to church and gave that 75 cents to the missionary fund. That money will be given to some starving India son-of-a-gun, and he will buy my wheat with it. In other words, gentlemen, I am buying my own wheat. The time for revolution, fellow citizens, has come.'"

MRS. MCKINLEY'S CORN HAT.

Among the curiosities that Mrs. McKinley has just added to the White House museum is a hat made entirely of corn. The hat was sent to the President's wife from Atchison, Kans., where it has figured in the great corn carnival which takes place annually in that city to celebrate the success of the season's yield. The hat was voted the most unique and dainty production of the corn festival. It was designed and made by Mrs. H. J. Cusack of Atchison. So tasteful and original have been Mrs. Cusack's productions in corn costumes that her delighted townspeople have dubbed her the "corn milliner of Kansas." The most peculiar feature of the corn hat is that the corn, having been treated by some special preparation, shines like ivory, and makes a most attractive headdress. Worn at night it would cause a sensation as one of the prettiest and most striking hats ever devised, and few would guess that the wonderful and costly-looking head covering was made of corn husks.

The opponents of grain inspection in Washington have made the chief inspector a world of trouble, and almost succeeded in nullifying the law. The Chief Inspector recently made the following proposition: That the inspection of water shipments of grain be discontinued; that the inspection of east-of-the-mountain oats and barley be waived by the inspectors whenever the consignee at this point could show that nobody was interested in the grade of the shipment, or whenever inspection was waived by both parties to the shipment. Seattle grain dealers accepted the proposition with barley excepted.



JOS. V. FERGUSON, NEW ORLEANS, LA.

Gulf route may expect to get much of the grain going abroad from the central West.

One of the late additions to the list of grain handling firms of New Orleans is Ferguson & McGinnis. This firm, which conducts a wholesale hay and grain commission business, was formed by a consolidation of two firms. Ferguson & Co., and McGinnis & Co., the youngest and among the most active members of the New Orleans Board of Trade. Their up-to-date methods of doing business have already made them many friends, and naturally they have built up a good business.

Jos. V. Ferguson was born in New Orleans, Oct. 15, 1868, and started in business when scarcely 15 years of age as a clerk for E. K. Converse, a prominent commission firm at that time. Four years later Mr. Converse retired from business, and Mr. Ferguson accepted a position as bookkeeper and cashier for Geo. E. Sears & Son, hay and grain dealers. After eight years with this firm, Mr. Ferguson decided to go into business for himself, and in September of 1895 he started in the hay and grain commission business, the style of the firm being Jos. V. Ferguson & Co. This firm continued until Nov. 1, 1897, when he consolidated with Mr. McGinnis, and formed the partnership of Ferguson & McGinnis.

The junior member of the firm, Theo. McGinnis, was born in New Orleans, Sept. 4, 1873. After a thorough schooling he concluded his studies during the year 1890, and on January 3 of the following year he entered the employ of his father, who was a prominent commission merchant for the sale of live stock. In November, 1892, he accepted a posi-

CROP REPORTING.

The Secretary of Agriculture in his recent annual report said, under the heading of Division of Statistics: "I am impressed with the extreme cumbrousness of the system of crop reporting that has been in use in this division during the last few years. Instead of conducing to completeness and accuracy, it would appear from the report of the statistician to in some measure defeat its own object by its unwieldiness, and by the fact that the indefinite multiplication of crop reporters weakens the sense of individual responsibility." He says also, of the monthly reports concerning the condition, acreage, and production of certain products of the soil and the number and value of farm animals, that their preparation has been the principal work of the division during the year; that these reports have been based on returns received from a corps of 56,700 regular correspondents, reporting monthly, and 140,500 special correspondents, reporting at particular seasons of the year.

The present statistician, Mr. Hyde, took charge of his division five months ago. In his recent report he goes into more of detail in regard to the cumbrous



THEO. MCGINNIS, NEW ORLEANS, LA.

machinery of the crop reporting work. He points out the fact that 25, or half the total number of the states represent from 95 to 98 per cent. of the production of cotton, corn and barley, and 88 to 93 per cent. of the wheat, oats, rye, buckwheat, tobacco, potatoes and hay. He therefore suggests the judicious selection of correspondents for these states, to be remunerated to the extent of \$20 per annum, by which, he says, the department would establish a system upon which it could rely for the due reporting of all but a very small part of the total production of the principal crops, and it could safely depend on its salaried state agents for information concerning the minor agricultural states. He estimates the cost of such a system at not to exceed \$30,000 per annum—meaning remuneration to correspondents—which implies not to exceed 1,500 as the number of correspondents.

An advance of six cents in the freight rate on grain, Kansas City to the Gulf ports, was announced recently, but, of course, the new rate has not been maintained. Such an advance would drive the grain out via Atlantic ports.

Evansville, Ind., has an ordinance fixing the price for weighing grain at 25 cents a load. The official weighmen made up their minds the city was getting too much out of it, so cut the price to 10 cents and said nothing about the receipts. It may be that city weighmen have a monopoly on honesty, but elevator men should be given credit with having a little—their weights are reliable, and they give the service free.

GRAIN DISTRIBUTING SPOUTS.

The elevator superintendent of ten years ago, who often bumped his head on the innumerable spouts leading from the bins to the elevator heads, would be delighted by a visit to the distributing spout floor of a modern elevator. The displacement of 10, 20 or 30 heavy wooden spouts by one strong, slender steel spout that performs the same service that all of the wooden spouts centered about the head did before, not only reduces the opportunity for mistakes in the distribution of grain, but also reduces the fire hazard and the cost of construction. The distributing spout floor of the elevator equipped with the improved movable steel spouts is airy and light and a cleaner and pleasanter place to work.

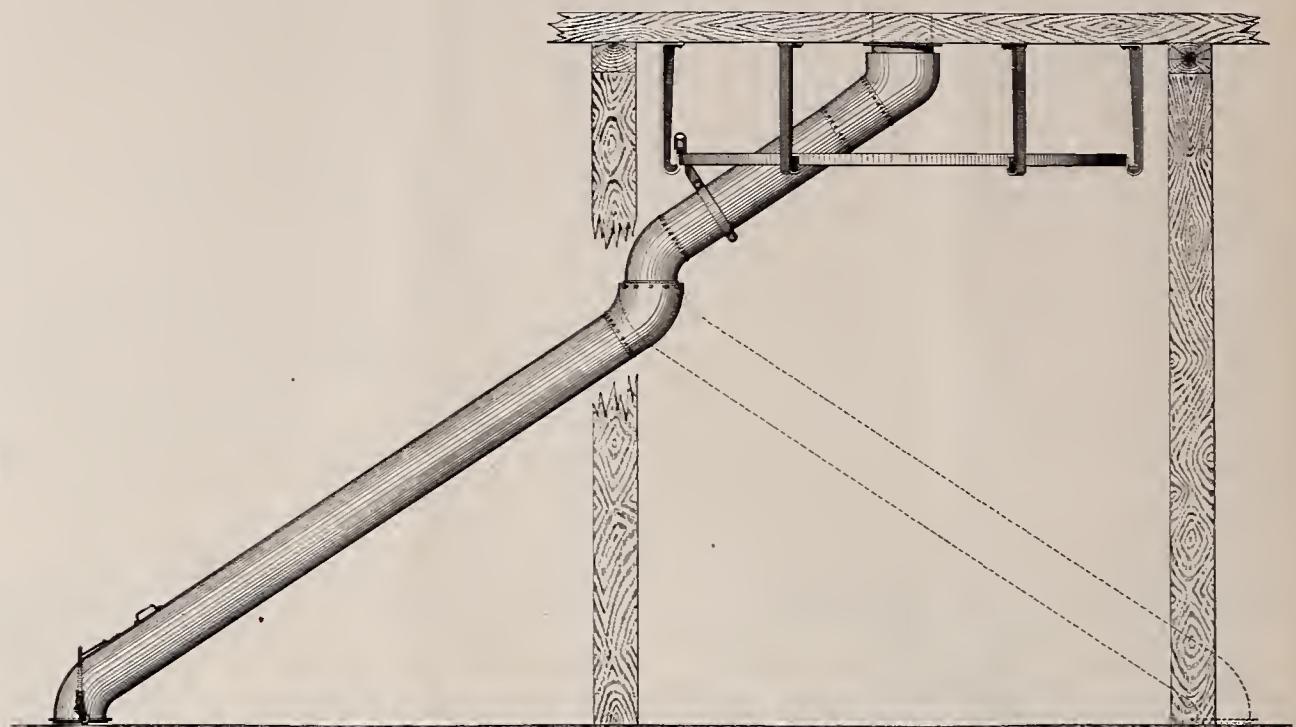
The movable distributing spouts are so very simple, yet so greatly superior to the old style spouts that it is a wonder the inventive genius of the elevator engineers never thought of it before.

The old elevator building firm of Simpson & Robinson was granted several patents on movable distributing spouts and claimed to be the originators of this style of spout, in fact, they began suit some years ago against builders for using movable spouts which they claimed were an infringement of their patent. Simpson & Robinson and their successor, D. A. Robinson of Chicago, have generally used the round spout for distributing spouts, but in the new Great Northern Elevator at Buffalo, N. Y., Mr. Robinson used the square spout as is shown by the view of the distributing spout floor of this elevator in this number. The round air trunks of the pneumatic sweeping apparatus shown in the small illustration should not be confused with the distributing spouts. The grain from all but the elevator heads at the ends of the elevator can be spouted to either of three double-jointed distributing spouts, so that grain from each leg can be sent to any of the bins reached by the long spouts. The support for the head and middle joint of this spout is quite different from anything

pulleys at the bottom. The makers claim that "this spout has wrought a great improvement in the distribution of grain in elevators. By the use of this spout a regular forest of ordinary spouting has been displaced, and now the distributing floor of the elevator is open and clean. This spout takes a very large radius, and is manufactured in capacity from 6,000 to 15,000 bushels per hour. It not only has a

will fulfill the requirements of a small country elevator or can be used in connection with other distributing spouts in large terminal elevators.

In all the modern elevators equipped by the Dodge Mfg. Co. of Mishawaka, Ind., the old method of distributing the grain from the seals to the bins by means of a number of individual wooden spouts has been superseded by the use of trolley spouts



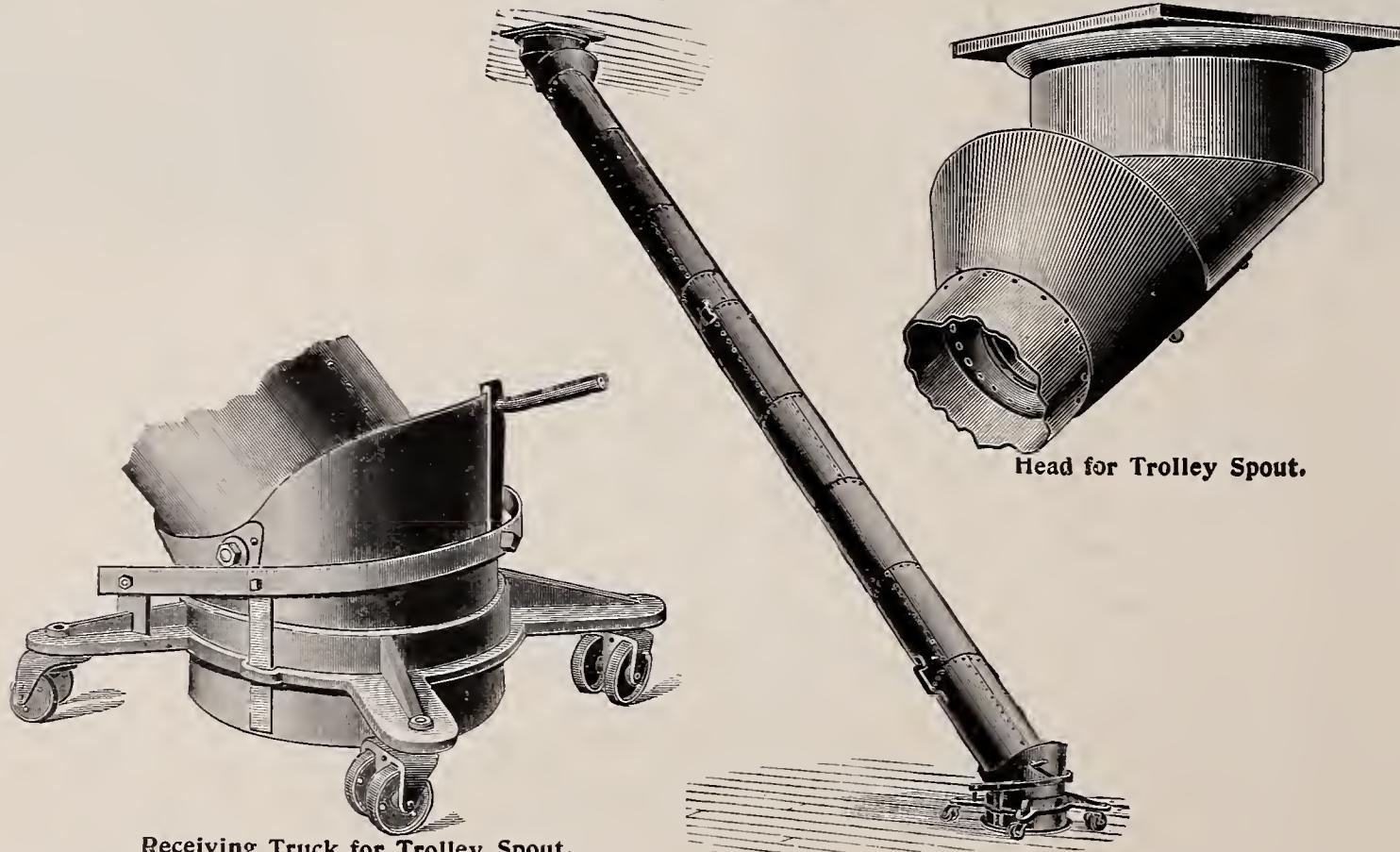
MAYO'S PATENT UNIVERSAL DISTRIBUTING SPOUT.

very large radius, but telescopes to take a great many different diameters."

The Webster Mfg. Co. also makes a telescope trolley spout which is designed especially for use in elevators where the ceiling of the distributing spout floor is low. The spout has ball bearings, and is supported on a truck so can be handled very easily.

made of sheet steel. These spouts are made in two styles. One kind is made in two pieces, the upper section being attached to a cast-iron head which revolves under the seals by means of a hinge joint. The lower section is usually one inch larger in diameter, and telescopes over the upper section, thereby shortening or lengthening the spout as de-

Trolley Spouts.



Receiving Truck for Trolley Spout.

THE DODGE TROLLEY SPOUT.

which has been used. A heavy steel rod which rests in a step or bearing on the floor not only supports the head, but by means of a cross arm supports the spout at the middle joint. Pulleys at the foot of the spout make it possible to move it easily and send the grain to the bin desired.

The double-jointed distributing spout known as Mayo's Patent Universal Distributing Spout made by the Webster Mfg. Co. of Chicago is shown on this page. This spout is supported from above by a pulley running on an iron ring or track, and by

it can be telescoped to reach near or distant openings so the grain can be spouted to many bins.

The distributing spout made by H. W. Caldwell & Son Co. of Chicago is made to fit loosely about the hopper bottom so as to permit it to turn freely. The spout is supported by a rod and bracket, in fact the rod extends to a lower floor, where a hand attached to it indicates to what bin the spout is sending grain. This distributor is designed for use in connection with a number of spouts or at points where there are few places to send the grain. It

sired. The foot of the lower spout is carried on a cast-iron carriage, having heavy casters with wheels 4 inches in diameter. The upper end is fitted with small iron wheels one inch in diameter, which project beyond the inner surface and rest on the outside of the upper section. By means of these casters the spout is easily shortened or lengthened and moved from place to place with little effort. It will discharge grain into any bin within its reach. They are usually made of No. 16 gauge steel, and in lengths varying up to 25 feet. The

Illinois Central Elevator "A" at New Orleans has in use four of this type of spouts, 16 inches in diameter, which are capable of distributing 15,000 bushels per hour. For large sizes and long spouts it is quite desirable to have the revolving part of the head fitted with ball bearings. The Mobile Terminal Elevator is fitted with trolley spouts each having nearly 200 $\frac{5}{8}$ inch steel balls in the head. This, of course, adds to the expense, but also lessens the labor of handling the spout. Trolley spouts are also made in one piece or length, as is shown, the lower end being carried as previously described, but this spout can only discharge grain to openings placed in a given radius, which radius is governed by the length of the spout. The average cost of a telescoping trolley spout complete with cast-iron revolving head is from \$35 to \$45, and it replaces in some instances several hundred dollars' worth of wooden spouts.

The distributing spout made by the E. H. Pease Mfg. Co. of Racine, Wis., is designed for country

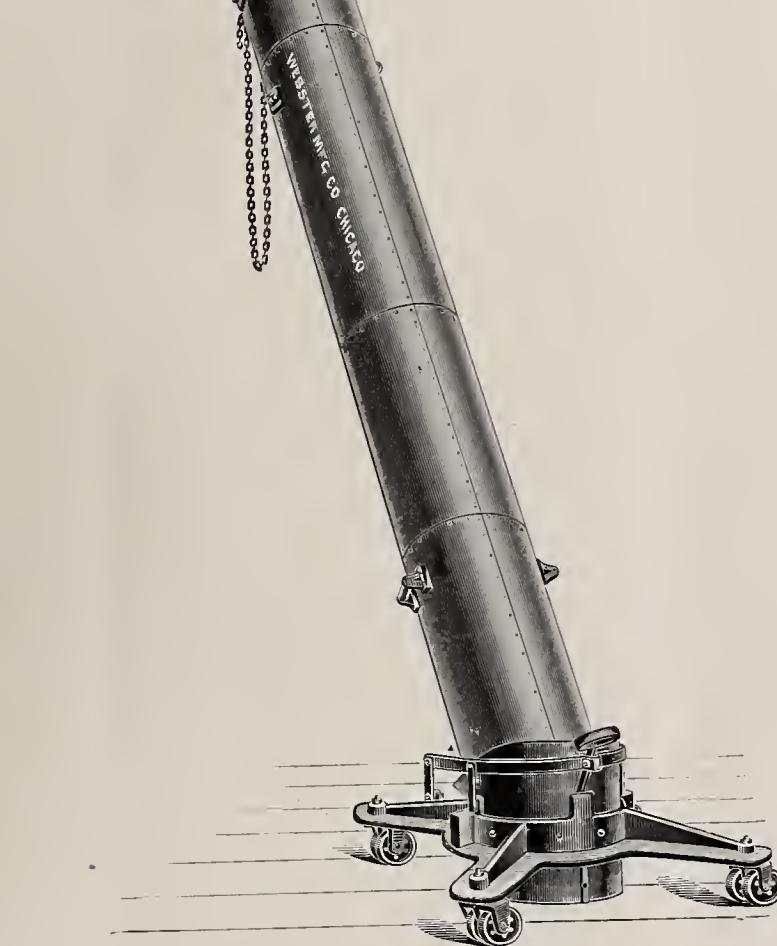
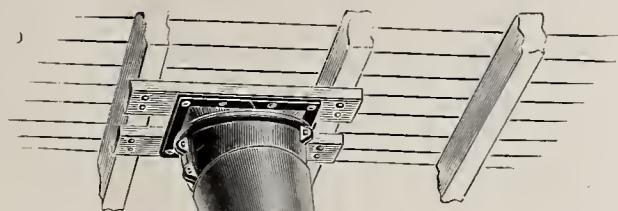
MYSTERIOUS DISAPPEARANCE OF GRAIN ELEVATORS.

This year Kansas seems to be a prolific producer of startling sensations as well as large crops. Last month an unoccupied mind at Larned, Kansas, set an active imagination to work with the result that a story from which we take the following was telegraphed to all parts of the country as real live news:

"One of those remarkable freaks which go to confirm the belief that a great river or sea overflows all of Western Kansas has just occurred near here. When the shades of evening lengthened into darkness last night the railroad station of Rozel on the Jetmore branch of the Atchison, Topeka & Santa Fe railroad, eighteen miles northwest of here, nestled peacefully on the bosom of the prairie, and no one doubted that the morrow's sun would but awaken its little industries to their usual life and

disappearance of three large elevators ran down to his own elevator, repeatedly looked at and finally kicked it to make certain that it was still there. Up to the present time no others have been reported among the missing. If it should happen again, we think the elevator men of that section should promptly organize a Bound Band of Elevating White Caps and adopt vigorous measures to prevent the mysterious disappearance of elevator property.

Brinkman Brothers, grain dealers of Larned,



THE WEBSTER TELESCOPE SPOUT.

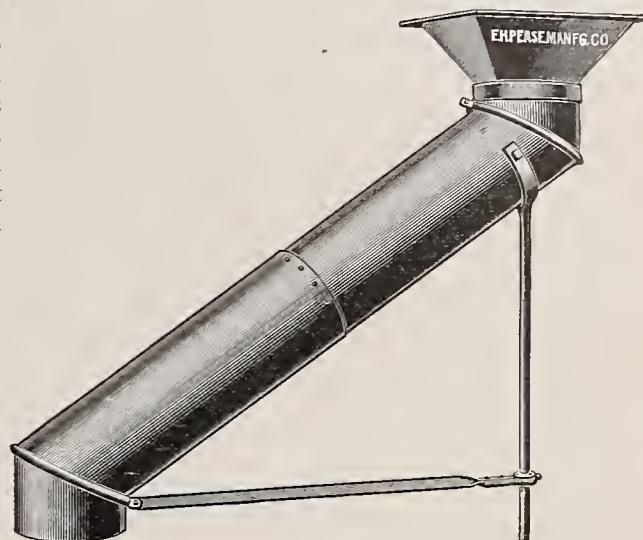
elevators or for places in terminal elevators where the number of bins desired to be reached is not large. The elbow of the spout fits loosely over the hopper bottom, so can readily be adjusted to any settling of the building. It is supported by a short rod and brace. The rod is supported by a step or extended to a lower floor and connected to an indicator stand. As regularly constructed the spout and hopper are made entirely of heavy sheet steel, but when desired are made of cast-iron. The all-steel spout is lighter, and will wear longer than cast-iron, and it is said the grain will flow through the steel spouts much more freely than through the iron.

The contention in one of the courts at Leavenworth that breaking into a freight car is not a felony is carrying the anti-monopoly sentiment in Kansas most too far. Even the railroads have some rights which the public are bound to respect.—Kansas City Star.

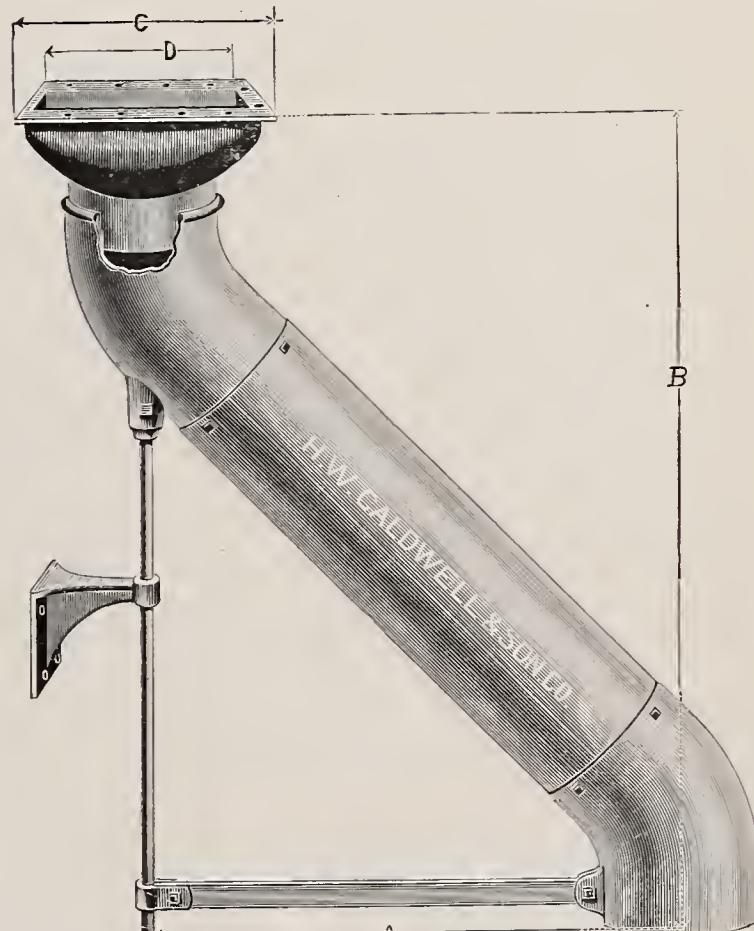
activity. This morning when those who lived in the neighborhood turned their attention toward the little hamlet they were thunderstruck to discover that the place which the night before had consisted of a depot, two or three small elevators, and a few other small buildings, had completely disappeared from the face of the earth, and a great chasm had taken its place.

"Investigation proved that the bottom had actually dropped out of the land upon which the village was located, and that it had disappeared into a bottomless chasm, the depth of which cannot be determined. The hole is about an acre and a half in extent, of an uneven, oblong shape, with rough, almost perpendicular walls. It is filled to within seventy feet of the surface with dark, stagnant-looking water, into which everything thrown, even lumber and light boards, immediately sinks."

No doubt every elevator man of Western Kansas who read this fear instilling account of the sudden



THE PEASE DISTRIBUTING SPOUT.



THE CALDWELL DISTRIBUTING SPOUT.

Kans., inform us that, "Two elevators swallowed; nothing in it. Some time ago the railroad company removed the depot and the report was sent out as a guy."

The politicians' free seed distribution which has cost the government several millions a year, and profited it nothing, may meet with another check. Professor Fernow, chief of the Department of Forestry, says that hereafter sporadic and unsystematic ways are to be supplanted by constant and scientific methods. Instead of merely scattering seeds and plants, and leaving the results to Providence and the public, the department promises to collect accurate data concerning the results. The most important undertaking of the Department of Forestry at present is an attempt to make a systematic canvass of the world" to determine what trees can best be made to grow in our arid and sub-arid regions," and "to introduce here and acclimatize the economically valuable plants from all parts of the world."

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

WILL BUILD NEW ELEVATOR.

Editor American Elevator and Grain Trade:—Henley Eversole has removed to Broadlands, Ill., and is erecting an office and scales and will begin buying grain at once. Work will be begun at an early date on a modern elevator of 25,000 bushels' capacity, on the site formerly occupied by the H. H. Carr Elevator, which was burned.

The new elevator at Muncie, Ill., is completed. It is a good building and well equipped.

CORN DEALER.

Fithian, Ill.

CHICAGO WEIGHTS NOT ALWAYS SHORT.

Editor American Elevator and Grain Trade:—As the question of shortages at Chicago has been raised, the experience of Hayward Bros. of Cropsey, Ill., may be interesting inasmuch as it shows that in some instances at least Chicago weights do not show a shortage when compared with shipper's weights.

This firm sold 50,000 bushels of corn to arrive to one party. It was weighed at the initial point in hopper scale and checked against the wagon scale weights, and showed 50,234.12 bushels. It was shipped during August and September over the Illinois Central Railroad, and the terminal weights at Chicago showed a total of 50,234.40 bushels. The weights given for the different cars varied one way or the other not to exceed 2 bushels, but the aggregate weight overrun 28 pounds.

SHIPPER.

CHANGES IN LIST OF REGULAR DEALERS.

Editor American Elevator and Grain Trade:—Please publish the following changes in the list of regular grain dealers of Illinois compiled by the Illinois Grain Dealers' Association:

W. R. Russell of Allenville, Ill., has been succeeded by T. Moneymaker.

F. W. Obermiller of Kenney, Ill., has been succeeded by the Samuel Grain Co.

The Johnston Grain Co. of Beason, Ill., has been succeeded by H. C. Suttle.

P. Risser of Thawville, Ill., has been succeeded by G. W. Madden.

S. L. Woodworth of Arcola, Ill., has been succeeded by H. M. Bone.

The firm of Fleming & Chipps of Sullivan, Ill., has been changed to Fleming & Glines.

B. S. Tyler & Co. succeed C. Holcomb & Co. at Oakley, Ill.

Yours truly,

B. S. TYLER, Secretary.

Decatur, Ill.

RECEIVE LOADING FEE.

Editor American Elevator and Grain Trade:—With reference to the treatment received by the grain dealers at the hands of the railroad companies, I can say that about a year ago we had a track buyer set down at three of our stations. The bad weather and the indisposition of farmers to sell at that time, coupled with the prices we offered, discouraged him, however.

Many years ago the writer was one of a syndicate, along the line of a certain railway, which enjoyed a rebate of one cent per bushel for all grain loaded on that line. I cannot vouch for it that such a condition still exists, but have every reason to believe that at least two parties on that line have such concessions now.

As I look at it, the associations have got to show the railroad companies that so far as legitimate dealers are concerned, the handwriting is on the wall. No sane man will erect a good plant of 20,000 to 50,000 bushels and store and carry grain until such time as rolling stock is supplied, knowing full well that cars can be had freely at any time if someone can sit down and dictate the prices at which he must buy.

At times during the past three months we have had every one of our houses filled, on which

we paid insurance, in addition to which is the cost of maintaining buildings, taxes, etc.

There never was a time when this could be more forcibly brought to the attention of the railways than at present, and I certainly think the grain dealers' association can prepare an appeal to the railways that cannot be passed unnoticed.

ELEVATOR OWNER.

INDICTED FOR USING SMALL TESTER.

Editor American Elevator and Grain Trade:—John W. Yeazell, a grain dealer and miller of New Moorefield, Ohio, has been indicted for using a small grain tester in violation of the law prohibiting the use of testers of less than one-half bushel capacity. This is an unjust law, and should be declared unconstitutional. At a meeting of Ohio grain dealers at Star Island, Mich., in June, it was decided to carry the case through the courts and test the constitutionality of the law, provided a sufficient sum could be raised among the grain dealers and millers to bear the expense. The committee appointed at this meeting consists of E. C. Wagner, Columbus, Ohio, C. R. Hunter, Mechanicsburg, Ohio, and myself. It will take \$500 to carry the case through all the courts. This is a matter in which all grain dealers in Ohio are interested, and should contribute toward paying the expense, as Mr. Yeazell will not fight the case through all the courts and pay the expense himself. If dealers and others will kindly advise me of the amount they are willing to contribute, I will let them know when the money is needed. The grain dealers thus far have expressed a willingness to contribute from \$2 to \$10.

Yours truly, E. A. GRUBBS,
Cincinnati, Ohio. Chairman.

THE KANSAS ASSOCIATION'S WORK: WILL MEET.

Editor American Elevator and Grain Trade:—At the meeting of the Grain Dealers' Associations of Southwestern Iowa, Northwestern Missouri, Kansas, and Nebraska, held in St. Joseph, Mo., November 26, the Trans-Missouri Federation of Grain Dealers' Associations was formed. The object of this Federation is the advancement and protection of the common interests of those regularly engaged in the handling of grain, and the promotion of friendly relations among the legitimate grain men of the country. In the Federation we have no detached membership, as each member of a local or state organization becomes a member of the Federation of Associations. The expenses of this organization will be kept down to the minimum. The President and Secretary and one director at large of each local association shall constitute a Board of Directors for this Federation. In these representatives are invested the voting power of the local associations.

At a meeting of the Board of Directors of the Kansas Grain Dealers' Association, held in St. Joseph on the same date, the Moffat Commission Co. of Kansas City was expelled from the Association for a violation of Article VI, Section IV of our by-laws. The Board very much regretted having to take this action, and only did so after repeated requests to this company to live up to the rules of our organization.

The annual meeting of the Kansas Grain Dealers' Association will be held at the National Hotel Jan. 11 and 12 at Topeka. We desire to have every member attend this meeting. There will be a good program arranged, and as this is the date set for the annual meeting, it is the interest of all to attend.

To give you an idea of what has been accomplished by the Kansas Association in the matter of weights on the Kansas City market, I give the following statement made by H. L. Harmon, one of the short-weight committee appointed by the Kansas City Board of Trade. He says:

"For the month of September, taking the total number of cars received by the elevators at Kansas City and comparing the weights on the grain as found by the railroad track scale weights, and the weights on the grain as found by elevator weights, there was an average weight of 128 pounds to the car in favor of elevator weights over the railroad weights. For the first 15 days in October, taking the same basis for figuring on the grain received in Kansas City for the elevators during that time, the

average difference in weights was found to be 115 pounds in favor of elevator weights. Previous to the agitation of the weight question, by the Board of Trade, and the appointment of the weight committee the average on railroad weights of grain received in Kansas City was 800 pounds greater per car than the average on elevator weights for the same car."

Now, if you will take the trouble to figure the number of cars received in Kansas City since the first of December, at an average gain of 900 pounds to the car over weights prior to this time, you will see that organization pays.

If it is deemed advisable, we will, if furnished statements of shortages by members, tabulate and show comparative shortages by every firm that takes grain out of the state. When the receiving houses know that every one of our members (and the members of the Western Federation) will be advised as to who furnishes best weights, and that they will divert shipments from firms or elevators whose weights are not proper, there will be competition among them to see who can furnish the best weights. Let this Association become indifferent or lukewarm, and see how soon this will all change.

After January 1 the Secretary's address will be Concordia, Kans.

Very truly yours,

E. J. SMILEY, Secretary.

GRAIN SHIPPERS HAVE NOT WITHDRAWN SUITS.

Editor American Elevator and Grain Trade:—I wish to deny most emphatically the report that the Grain Shippers' Association of Northwest Iowa has settled with the Chicago & Northwestern Ry. That road has succeeded in persuading just one of our seventy odd members on that road to withdraw his claim, by paying all his expenses, including attorneys' fees, association dues, and agreeing that no more elevators shall be built in competition with him.

My attention has been called to a newspaper article, set with big headlines, and evidently edited by a railway attorney. The article was intended to convey the information that all the suits will now be withdrawn. Why? Now, there are about one hundred and thirty parties interested in these suits, and from actual knowledge only eight have made any kind of a settlement with the railways. These live in Northeast Iowa, where the discrimination and excessive charges are not so violent. The railways are using every means known to effect a settlement of these suits out of court for a song. Smooth tongued attorneys will eloquently tell us that "there is no hope to win," since the ruling of Judge Shiras at Dubuque, which was the only straw they have had to hang a hope on since the beginning of the suits.

It is not my purpose to discuss the merits of the litigation, or decision or ruling of the court. We are satisfied with the rulings of the court in every particular. Now, what are the facts of our contention? Unfortunately for the garden of the world—Northwest Iowa—we are located in a triangle, where the railways have always charged higher rates on the products of the farm and field, to get them to market, than any other part of the agricultural district of the Union. Let us see: Rates on wheat, corn, oats and barley from Minneapolis and the Northwest to Chicago, including a large part of Minnesota, are on the basis of 12 cents per hundred-weight to Chicago. Rates on grain from Kansas City and most of Southwestern Iowa to Chicago are from 9 to 12 cents per hundred to Chicago. Now, what are they from the "Triangle," Northwest Iowa, to Chicago? Wheat, 23 to 24 cents per hundred to Chicago. How does that look to you on paper? Cold facts, too. Just the same distances from the "Triangle" as from the territory that has very nearly just half as much freight to pay.

Now, this is simply the contention of the grain shippers of Northwest Iowa. And claims for these outrageous overcharges the railway companies are trying to buy, bulldoze, settle in any and every way, so it is cheaper than to foot the bill as they should do. The most generally approved plan now is to send an agent ahead, proposing to build massive elevators at all points in competition with

the grain men who have suits started. But when they get well interested in the "building" they will suggest that if you withdraw your suit "I will see that no more elevators are built in competition with you." See?

Please let it be known that the suits are not to be withdrawn. There may be here and there one who will "lay down" at the mandate of the railroads, but the suits are to go on just the same. Not one thing discouraging to our contention, save the delays by the railroads, has occurred up to date, and having, as we believed at first, and still believe, the eternal principle of right on our side, we shall go on, until the "Triangle" can get their products to the markets of the world as cheaply as others, not more favorably situated.

Since the article referred to appeared in print, the attorneys, agents and other representatives of the Illinois Central R. R. have begun to work on our men located along their line as they have not before. I will only add in closing that I can verify all the statements made herein.

Our Grain Shippers' Mtnal Fire Insurance Association is going right along, and we are writing new risks all the time.

Very truly yours,

F. D. BABCOCK, Secretary,
Ida Grove, Iowa.

IN DEFENSE OF CHICAGO WEIGHTS.

Editor American Elevator and Grain Trade:—Upon complaint of E. R. Ulrich & Sons of Springfield, Ill., of weights of grain at Chicago, the Weighing Committee of this Board instituted an examination as to the weighing of cars in the Chicago market

shipped by E. R. Ulrich & Sons, and to that end obtained several lists of cars from and shipped by that firm, giving weights of each car and name of station from which shipped. In order that the examination on the part of the committee might be absolutely unprejudiced, it was manifestly necessary to obtain not only the lists above referred to, but also to ascertain the facilities at these various stations for weighing grain, the care exercised in such duties, and as to whether there was a uniform system of weighing at these several stations similar to the uniform and official system practiced, without exception, in weighing grain in this market. In other words, it was necessary to know with what a uniform system in Chicago of sworn weighers is compared, for, evidently, unless both systems—those at shippers' points and those in Chicago—were uniform and reliable, the result of such comparison would be, to a greater or less extent, unsatisfactory.

What do we find? Messrs. E. R. Ulrich & Sons wrote, under date of November 30 last, that at the following stations grain weighed "was almost invariably weighed in hopper scales"—Illiopolis, Lanesville, Buffalo, Dawson, Bates, Berlin, Carroll, Athens, Pawnee, Chatham, Laomi and Waverly, and added that "once in a great while we have to buy a lot of corn from a farmer loaded on track." E. R. Ulrich & Sons, under same date, write, "at Island Grove, Sanger and Riverton we often have to weigh stuff from wagons," and "at Curran we sometimes load from wagons, but generally from hopper scales in elevators." This manner of loading and weighing, and the admitted liability to frequent errors at points of shipment, must, of course, be taken into consideration in an unprejudiced investigation of Chicago weights as compared with those weights where they are sometimes weighed in hopper scales and sometimes not, and sometimes from a farmer loaded on track and often from wagons. If such, or similar, facts were connected with weighing grain in this market they would absolutely render unworthy of confidence such weights, and at all events would prevent Chicago weights from being standard weights for the purpose of comparison as to whether country weights were reliable or not.

To compare measures with a yardstick that was sometimes three feet, sometimes less, and sometimes more, and liable to vary at any time, would be more than ridiculous. No less so is it to compare weights in Chicago, where a uniform and undeviating system is practiced, with weights at stations where the grain is sometimes loaded in hopper scales, sometimes weighed from wagons, sometimes loaded from

wagons, and sometimes not. These are the circumstances under which Chicago weights of grain are challenged. Let us see how we come out, and the result will show not how deficient are Chicago weights, but how faulty and variable, and how greatly liable to vary, are the weights at the stations mentioned in lists referred to.

Messrs. E. R. Ulrich & Sons advise us of grain shipped from the following points, giving weight of each car: New Berlin, Illiopolis, Buffalo, Dawson, Curran, Bates, Pawnee, Alexander, Laomi.

It is noticeable in examining this list that car No. 35,014, shipped November 5 last, from Illiopolis, although the number of bushels is given by Ulrich & Sons at point of shipment, the number of bushels is not given as weighed in Chicago, and as properly and officially returned, and it is significant in this connection that this car by Chicago weights overran 90 bushels and 20 pounds. In the examination of this list we have excluded Dawson, Curran and Laomi, as at these places, particularly, the weights were admittedly unreliable. Although the result of the weighing of one car shipped from Dawson showed an overrun of 10 bushels and 30 pounds, but the committee wish to be perfectly fair, and do not intend to throw out of the list or out of its calculations merely those cars which fall short, and not throw out those which overrun. Exclusive of these points, the weights of Chicago, as compared with the weights at the various points of shipment, average less than $1\frac{3}{4}$ bushels per car, and said to comprise shipments from these points from July 1, 1897, to Nov. 8, 1897.

Among cars shipped from Berlin was car No. 11,439, shipped September 21 last. The committee found tacked to this car a yellow tag upon which is printed "Official Car Tag of the Grain Dealers' National Association."

This car was loaded with yellow corn by Messrs. E. R. Ulrich & Sons of Springfield, Ill., who are members of the Grain Dealers' National Association. It is marked as containing 30,270 pounds. The corn in this car was weighed in Chicago and weighed 36,080 pounds, or 5,810 pounds more than is stated on the tag. This must have been a mistake, and only goes to show that the weights as given at points of shipment are not reliable. Further it was found that of the cars shipped from Berlin, car No. 30,128 and car No. 48,846 were marked as "leaky."

Referring to another statement furnished by this firm of 33 cars shipped from Lanesville, and 125 cars from Island Grove, it is to be observed with reference to Island Grove, particularly, that Ulrich & Sons have written that "at Island Grove, Sanger and Riverton we often have to weigh stuff from wagons." Keeping in view this fact, admitting of no discussion, inasmuch as it is an admission of the plaintiff, the average shortage per car was 8 bushels and 44 pounds.

The committee in the course of its investigation found that 80 cars of corn shipped on the Illinois Central Railroad, weighed under a uniform and approved system and containing according to weights at points of shipment 50,234 bushels and 12 pounds, weighed, according to Chicago weights, 50,234 bushels and 40 pounds, overrunning just 28 pounds on the whole lot. These shipments were made during the months of August and September. They were not from E. R. Ulrich & Sons, but have an important and satisfactory bearing upon the accuracy of Chicago weights, and were weighed by an approved and uniform system, and were therefore properly comparable.

The Board of Trade is, of course, as much interested as anyone possibly can be in having weights of grain as obtained in Chicago absolutely accurate, and consequently, through its committees, is not only ready, but anxious at all times to make investigations concerning Chicago weights, but insists that where comparisons are made that they must be made with those weights obtained under equally reliable and uniform facilities for weighing.

To show the unfairness of the representations made by Messrs. E. R. Ulrich & Sons, in a communication in your paper of November 15, a statement is made of car No. 4,139 from Athens loaded, according to their weights, 1,087 bushels, and reported in Chicago as 1,065, showing a shortage of 22 bushels.

Messrs. Ulrich & Sons fail to make mention of the fact that this car was reported as arriving with a "leaky grain door." They also fail to report from Athens car No. 190, shippers' weights, 723 bushels, and as weighed in Chicago 730 bushels and 40 pounds, showing an overrun of 7 bushels and 40 pounds. They also failed to state that at the same time there was shipped from the same place car 60,667, and that car showed a shortage of 38 pounds, and also car No. 94,108 showing shortage of 2 bushels and 12 pounds. Including the leaky car No. 4,139, these four cars shipped from Athens show an average shortage of only 4 bushels and 9 pounds, while without the leaky car there would have been an overrun of about 1 bushel to the car.

It is proper to state that it is claimed that the weights in some other markets more nearly correspond with weights at point of shipment than the weights obtained in Chicago. In some instances, and with reference to some shipments this might occur, while on the other hand it undoubtedly would occur at some particular time that the weights of grain obtained in Chicago more nearly correspond with the weights at point of shipment than weights obtained in other places of destination. Still, such an experience either on the one hand or on the other would have no logical or conclusive force.

We are glad to have these questions raised, and trust that this and other inquiries and investigations will result in care and uniformity in weighing grain at points of shipment, so that when questions may arise with regard to the accuracy of Chicago weights we may have something reliable to compare with.

Respectfully, GEO. F. STONE,
Secretary Board of Trade,
Chicago, Ill.

BUSINESS REDUCED BY FARMERS' SHIPPING ASSOCIATION.

Editor American Elevator and Grain Trade:—I do wish you would stir up the grain dealers and induce them to get together. The trade surely needs protection from the scoop-shovel men and the farmer shippers. I am trying to buy at two stations and can hardly make enough to pay pew rent. My school, state and county taxes are paid by my wife. Yet these fellows, who have no property interests at either place, and, of course, pay no taxes, are permitted to compete with me without investing a cent. I feel that I am being treated decidedly shabbily by the local government and by the railroad company. Frequently, I feel like selling my elevators for old wood, surely no sane man would buy them to carry on a grain business when it is well known that he will not be protected in such use.

The farmers have formed a shipping association, and pay an ex-scoop-shovel tramp \$42 a month to look after the loading of their grain into cars, shipping it, etc. The farmers accept destination weights and grades. Farmers who are not members of the association can have their grain shipped with that of members for one-half cent a bushel. The association has no storage facilities except that afforded by the railroad company's cars. It is the hardest competition I have ever run against, and cuts the life out of my profits. If this shipping association plan of business spreads, the trade—well, it will drive the regular grain dealers out of business.

I am getting very tired of this kind of competition, and I would be much obliged to anyone who will suggest a remedy or tell how others have attempted to get relief.

IOWA SHIPPER.

[If "Iowa Shipper" is a member of the Grain Dealers' National Association or any of the Iowa associations he should learn what market and firm the farmers are shipping to; get dates, car numbers and initials of some shipments and submit a full statement of the case to the Secretary of your Association; he may be able to help you.—Ed.]

Grain dealers of Winona, Minn., expect that a larger acreage will be sown to wheat next spring than for many years past. The farmers of that district have given much attention to the growing of barley, but the higher prices for wheat promises to cause them to return to wheat.

FRUITFUL KANSAS.

Just a haulin' out the stuff
From the plains o' Kansas;
Railroads can't get cars enough
Fur to empty Kansas.
Ort to see the farmers grin,
Stroke the lilacs on their chin.
As the cash comes rollin' in.
Over there in Kansas.

Women singin' songs o' glee
'Bout ol' fruitful Kansas;
Babies crownin' merrily
Everywhere in Kansas.
Perty girls a-buyin' clothes.
Toggin' out from head to toes.
Style? You bet your life she goes.
Over there in Kansas.

When the cares o' day is done,
On the plains o' Kansas;
An' the kids begin to yawn,
Sleepy-like in Kansas.
Farmer wipes his glasses blurred,
Reads a chapter o' the Word,
Then kneels down and thanks the Lord
That he lives in Kansas.

—Philistine.

THE ST. JOSEPH MEETING OF
ASSOCIATION DELEGATES.

With a view to forming a federation of the members of the Southwestern Iowa and Northwestern Missouri Grain Dealers' Union, the Nebraska Grain Buyers' Association, and the Kansas Grain Dealers' Association, each of these associations delegated three of its members to meet with a like delegation from the other organizations. On November 26 the three delegations met at St. Joseph, Mo.

On motion, D. Hunter was selected for temporary chairman, and A. H. Bewsher for temporary secretary.

E. J. Smiley of Dunavant, Kans., stated the object of the meeting. After discussing the objects of the meeting and examining the constitutions of the various associations it was moved by J. Wort and seconded, that we take up the various constitutions, compare article with article, and extract such as may be needed for this federation from these various constitutions. Carried.

This work was taken up by all the delegates acting as a committee. After much labor and with a view to keeping the expense of the federation down to a minimum, and still have it meet all of the demands of such an organization, the following constitution and by-laws were adopted:

CONSTITUTION.

We, the undersigned, delegates representing the local grain dealers' associations of Southwestern Iowa and Northwestern Missouri, Kansas and Nebraska, recognizing the necessity of a federation of these local organizations do hereby associate ourselves in an organization, the objects of which shall be the advancement and protection of the common interests of those who are regularly engaged in the grain business, the formulation of rules for the transaction of business, and the promotion of friendly relations among legitimate grain men of the country. For the furtherance of that purpose we hereby create and establish this constitution.

ARTICLE I—NAME.

The name of this organization shall be the Trans-Missouri Federation of Grain Dealers' Associations.

ARTICLE II—MEMBERSHIP.

This organization shall consist of the members of the Southwestern Iowa and Northwestern Missouri Union, the Nebraska Grain Buyers' Association, and the Grain Dealers' Association of Kansas. This federation is to have no detached membership.

ARTICLE III—OFFICERS.

Section 1. The President and Secretary of each local association, and one director at large, elected by each local association, shall compose a Board of Directors of this Federation, in whom are vested the voting power of that local association, each representative or member of the Board of Directors being entitled to one vote only.

Sec. 2. The chairman, Secretary and Treasurer are to be elected at first meeting of said Board, and to hold office for one year from date thereof.

Sec. 3. This Executive Board shall hold office one year, or until their successors shall have been duly elected and qualified.

ARTICLE IV—DUTIES OF OFFICERS.

Section 1. It shall be the duty of the Chairman to preside at all meetings of the Federation, to have a general supervision of the work of the Federation and to sign all orders drawn on the Treasurer by the Secretary.

Sec. 2. It shall be the duty of the Secretary to

record and preserve the minutes of all meetings of the Federation, conduct correspondence and issue all notices of meetings. He shall make a full report of the work of the Federation at each annual meeting, keep local secretaries notified of what is being done between meetings, attend all regular meetings of the local associations and any other duties required of him by the Board of Directors. He shall collect all money due this Federation and turn it over to the Treasurer of the Federation.

Sec. 3. It shall be the duty of the Treasurer to have charge of all the money of the Federation and to pay out money only upon orders signed by the Chairman and Secretary. He shall report the state of the finances at each regular meeting of the Federation.

Sec. 4. It shall be the duty of the Board of Directors to look after the interests of the Federation under the general policy outlined by the members at annual meetings, transact the necessary business of the Federation, investigate all complaints that arise before them and work for their adjustment, investigate the condition annually of the books of the Secretary and Treasurer, to act as a Board of Appeal and Arbitration, and all other functions delegated to them from time to time by the annual meetings.

Sec. 5. A majority vote of the whole number of the Directors present at any meeting or vote by mail to the Secretary shall be a valid action of the Board unless otherwise specified.

ARTICLE V—ASSESSMENTS.

The funds of this Federation shall be raised through assessments, ordered by the Board of Directors, in such amounts pro rata with each local association's membership, as they deem necessary for the maintenance of the organization. Assessments to be paid by the treasurers of the state and local associations.

ARTICLE VI—AMENDMENTS.

This constitution may be altered or amended by a two-thirds vote of the members of the Board of Directors present at any meeting of the Board, or by mail an affirmative vote of two-thirds of all the members of the Board of Directors. Such alterations and amendments as made by the Board of Directors shall take effect at such time as they may designate, and be in full force until approved or rejected at the next annual meeting. Notice of any alteration or amendment as made by the Board of Directors shall be mailed to the Secretary of each local association thirty days prior to the annual meeting.

BY-LAWS.

ARTICLE I—MEETINGS.

Section 1. There shall be annual meetings of the Federation, subject to the call of the Chairman and Secretary.

Sec. 2. A quorum shall consist of five members of the Board of Directors.

ARTICLE II—EXPENSES OF DELEGATES.

Each local association shall pay all traveling and hotel expenses of its representatives or delegate to all meetings of the Federation.

ARTICLE III—SECRETARY'S SALARY.

The Secretary shall receive a salary of \$300 per annum, payable out of the funds heretofore provided for.

ARTICLE IV—COMPLAINTS.

Section 1. All complaints or grievances of whatever character must come to the Secretary of the Federation from the secretaries of the local associations.

Sec. 2. All complaints and grievances so submitted shall receive the prompt attention of the Secretary, and if necessary be referred to the Board of Directors for their action, who shall make a thorough investigation of the case.

ARTICLE V—AMENDMENTS.

These by-laws may be amended by a majority vote of the members of the Board of Directors present at a regular meeting.

The delegates then proceeded to elect a chairman, a secretary and treasurer for the coming year.

N. B. Hieatt placed in nomination J. Wort of York, Nebr., for chairman. The nomination was seconded and carried. Mr. Wort received the unanimous vote.

Ballot was then taken for secretary. The secretaries for the three local associations being proposed as candidates. E. J. Smiley was declared elected, and he accepted.

N. B. Hieatt placed in nomination for treasurer M. H. Roller of Circleville, Kans. Seconded and carried.

Chairman Wort presented for reading a bill introduced in the Nebraska legislature last year relative to railroad companies issuing to shippers a clean bill of lading. No action taken.

Kansas City weights were then discussed, after which the meeting adjourned.

A. H. BEWSHER, Temporary Secretary.

KANSAS GRADES.

The rules and regulations governing the inspection of grain adopted by the Kansas State Grain Inspection Department, in force on and after Sept. 8, 1897, about which Chief Inspector W. W. Culver wrote, on page 174 of the November number, are as follows:

RULE I.

KANSAS HARD WINTER WHEAT.

No. 1—Shall be pure hard winter wheat, sound, plump and well cleaned, and shall weigh not less than 60 pounds to the bushel.

No. 2—Shall be sound, dry and reasonably clean hard winter wheat, and shall weigh not less than 58 pounds to the bushel.

No. 3—Shall include hard winter wheat sound and some bleached, but not clean or plump enough for No. 2, and shall weigh not less than 55 pounds to the bushel.

No. 4—Shall include hard winter wheat, tough, or from any cause so badly damaged as to render it unfit for No. 3 Hard.

Rejected—All very damp, very musty or smutty, trashy or dirty winter wheat.

WINTER WHEAT.

No. 1 White—To be bright, dry, plump and well cleaned pure white winter wheat.

No. 2 White—To be sound, dry well cleaned, pure white winter wheat.

No. 3 White—To be sound, dry, white winter, reasonably clean.

No. 1 Red—To be bright, sound, plump, dry and well cleaned red winter wheat, weighing not less than 61 pounds to the measured bushel.

No. 2 Red—To be sound, well cleaned, dry red winter wheat, weighing not less than 59 pounds to the measured bushel.

No. 3 Red—To be sound, reasonably cleaned red, or red and white mixed winter wheat, below No. 2 Red, weighing not less than 56 pounds to the measured bushel.

No. 4 Winter—To be red, thin or bleached winter wheat, reasonably sound and unfit to grade No. 3 red.

Rejected Winter—All damp, tough, very musty, very smutty, trashy, dirty, damaged or thin wheat falling below No. 4 winter.

CALIFORNIA, COLORADO, WASHINGTON, IDAHO AND UTAH WHEAT.

No. 2—To be sound, dry, well cleaned, pure white wheat, free of smut, grown in Colorado, Utah, California, Washington or Idaho.

No. 3—To be sound, dry, reasonably cleaned white wheat, grown in Colorado, Utah, California, Washington or Idaho.

Wheat of above description of lower grades to be classed on its merits as regular No. 4 or Rejected.

RULE II.

SPRING WHEAT.

No. 1—To be bright, sound and well cleaned spring wheat.

No. 2—To be bright, sound spring wheat, reasonably cleaned, and weigh not less than 57 pounds to the bushel.

No. 3—To include all dry and reasonably sound spring wheat, not equal to No. 2, and weigh not less than 55 pounds to the bushel.

WHITE SPRING WHEAT.

No. 1 White—To be bright, sound and well cleaned white spring wheat.

No. 2 White—To be bright and sound white spring wheat, reasonably cleaned.

No. 3 White—To include all dry and sound white spring wheat below No. 2.

REJECTED SPRING WHEAT.

All damp, tough, musty, very smutty, trashy, dirty, damaged or thin wheat falling below No. 3.

MIXED WHEAT.

No mixtures of different kinds of wheat shall be allowed in Nos. 1 and 2 Red Winter Wheat, Nos. 1 and 2 Hard Winter Wheat, and Nos. 1 and 2 Spring Wheat.

All mixed Spring and Soft and Hard Winter Wheat shall be classed as Mixed Wheat, and graded as follows:

No. 2 Mixed Wheat—To be sound, dry and clean, and not to weigh less than 58 pounds to the bushel.

No. 3 Mixed Wheat—To be sound and reasonably clean, and not to weigh less than 55 pounds to the bushel.

No. 4—Shall include mixed Winter Wheat, or from any cause so badly damaged as to render it unfit for No. 3 mixed.

REJECTED MIXED WHEAT.

All damp, tough, musty, very smutty, damaged or thin Mixed Spring and Winter Wheat falling below No. 3 Mixed Wheat shall be graded as Rejected Mixed Wheat.

RULE III:

CORN.

No. 1 Yellow—Shall be pure yellow corn, sound, dry and well cleaned.

No. 2 Yellow—Shall be $\frac{3}{4}$ yellow, sound, dry and reasonably clean.

No. 3 Yellow—Shall be $\frac{3}{4}$ yellow, reasonably dry

and reasonably cleau, but not sound enough for No. 2.

No. 1 White—Shall be pure white corn, sound, dry and well cleaned.

No. 2 White—Shall be 15-16 white, sound, dry and reasonably clean.

No. 3 White—Shall be $\frac{7}{8}$ white, reasonably dry and reasonably clean, but not sound enough for No. 2 white.

No. 4 White—Shall be $\frac{7}{8}$ white, not wet or in a heating condition, and unfit to grade No. 3 white.

No. 1 Corn—Shall be mixed corn, of choice quality, sound, dry and well cleaned.

No. 2 Corn—Shall be mixed corn, sound, dry and reasonably clean.

No. 3 Corn—Shall be mixed corn, reasonably dry and reasonably clean, but not sufficiently sound for No. 2.

No. 4 Corn—Shall include all mixed corn, not wet or in a heating condition, that is unfit to grade No. 3.

RULE IV.

OATS.

No. 1 Oats—Shall be mixed oats, sound, cleau, and free from other grain.

No. 2 Oats—Shall be mixed oats, sweet, reasonably clean and reasonably free from other grain.

No. 3 Oats—Shall be mixed oats that are slightly damp, unsound, slightly musty, dirty, or from any other cause unfit to grade No. 2.

No. 4 Oats—Shall be mixed oats, not wet or in a heating condition, or from any other cause unfit to grade No. 3.

No. 1 White Oats—Shall be pure white, sound, clean and free from other grain.

No. 2 White Oats—Shall be $\frac{7}{8}$ white, sound, reasonably clean and reasonably free from other grain.

No. 3 White Oats—Shall be $\frac{7}{8}$ white, but not sufficiently sound and clean for No. 2.

No. 4 White Oats—Shall be $\frac{7}{8}$ white, not wet, or in a heating condition, badly stained, or from any other cause unfit to grade No. 3 white.

Yellow or Golden Oats—Shall be graded according to the quality thereof, and classed not higher than No. 3 white oats.

RULE V.

RYE.

No. 1—To be plump, sound, bright and well cleaned.

No. 2—To be sound and reasonably clean.

No. 3—To be reasonably sound and reasonably clean, unfit for No. 2.

No. 4—To include all damp, musty, dirty rye, unfit for No. 3.

RULE VI.

BARLEY.

No. 1—To be plump, sound and free from other grain.

No. 2—To be sound and reasonably clean.

No. 3—To be reasonably clean and merchantable.

Rejected—To include all unsound and damaged barley.

RULE VII.

NO-GRADE GRAIN.

All grain that is wet or hot, or in heating condition, shall be classed as No-Grade.

RULE VIII.

All inspectors shall make their reasons for grading below No. 2 fully known by notation on their books. The weight alone shall not determine the grade.

RULE IX.

Each inspector is required to ascertain the weight per measured bushel of each lot of wheat inspected by him, and note the same on his books.

RULE X.

All grain in store in any warehouse at the time of any amendment to the established rules of inspection (affecting such grain) may hereafter go into effect, shall be inspected out (in satisfaction of warehouse receipts, dated prior to that time only) in accordance with the rules as they stood prior to such amendment.

RULE XI.

All claims for damages against the inspectors or weighmasters should be filed in this office before the grain has left the jurisdiction of this department.

RULE XII.

The maximum charge adopted by this department for the inspecting, weighing and sampling of grain are as follows:

Inspecting on arrival, 25 cents per car.

Inspecting out of elevators, bulk, 25 cents per car.

Inspecting out of elevators, to barges, 25 cents per 500 bushels.

Inspecting sack grain, one-half of cent per sack.

Weighing in or out of elevators, 25 cents per car.

Weighing in or out of barges, 25 cents per 500 bushels.

Weighing sack grain 50 cents per 500 bushels.

"Set backs," charges for the same as regular.

All samples, 10 cents each.

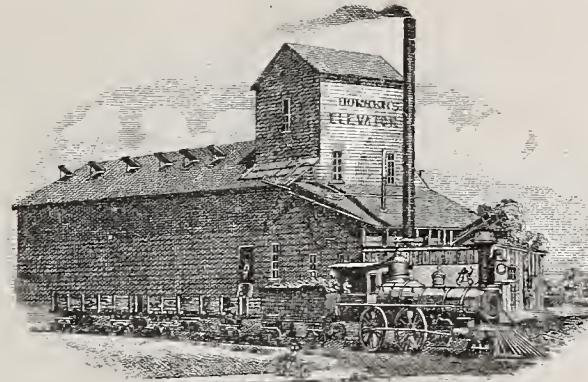
No charge for reinspection of bulk grain if done at the point of inspection, if otherwise, the ex-

pense of getting to and from the grain will be charged.

The foregoing are the rules adopted by the Kansas Grain Inspection Department establishing a proper number and standard of grade for the inspection of grain, the same to take effect on and after the 8th day of September, 1897, in lieu of all rules on the same subject heretofore existing.

HORNER BROTHERS' ELEVATOR AT OLNEY, ILL.

Among the many elevators scattered through the southern part of Illinois there are probably none of proportionate capacity that do a larger or more prosperous business than the grain elevator of Horner Bros., at Olney, shown in the accompanying illustration. It is situated on the Baltimore & Ohio Southwestern at the junction of the Peoria, Decatur & Evansville and the Chicago & Ohio River railroads. The city of Olney has 5,000 inhabitants and is situated 118 miles east of St. Louis and 222



HORNER BROTHERS' ELEVATOR AT OLNEY, ILL.

miles west of Cincinnati. The elevator is the only one in the city and is the largest in that part of the state.

The elevator contains 16 bins with an aggregate capacity of 75,000 bushels. The building is 164x36x30 feet and is built of frame with a metal roof. There is sink room for 500 bushels of oats and wheat. A 32-horse power engine furnishes the power. The elevator is equipped with a No. 1 Steadman Sheller and a Barnard & Leas Separator.

The principal crops are wheat, corn, oats and red top, and the section enjoys the distinction of being the largest red top seed market in the world. The firm ships from 300 to 400 cars of grain annually.

The members of the firm are J. N. Horner, D. Horner and G. W. Horner. They are progressive business men and understand the grain trade thoroughly. The firm does a general storage business and also solicits grain on consignments.

Wheat will not be burned or fed to hogs this winter, but may be given away as Christmas presents.



LONG AND SHORT.—Zahn's Circular.

QUERIES: AND: REPLIES

[Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column.]

No. 7. Carloads in Philadelphia Market.

Suppose I sold ten cars of oats to arrive through a Philadelphia commission man, and loaded 9,398 bushels of oats into seven cars, and shipped them in fulfillment of my sale. Can the buyer hold me for three more carloads of oats?—SHIPPER. [The rules of the Philadelphia Commercial Exchange, Rule V, Sec. 8, provide that "Deliveries on contracts for car lots shall be on the basis of 500 bushels to the car for wheat and corn, and 900 bushels to the car for oats; excess or deficiency to be settled for at the market price at the conclusion of the noon call on the day of delivery." If the Philadelphia dealers through whom and to whom your oats were sold are members of the Commercial Exchange, they are amenable to this rule, and cannot require you to deliver any more oats on the contract to deliver ten cars.]

DOTS. AND. DASHES

Reports from Wells, Minn., are to the effect that many cattle have died from eating too much smutty corn.

Duluth's receipts of wheat have fallen off considerably this season, but the receipts of corn and rye show a gain.

The elevator men in Minneapolis are buying corn in Iowa and Kansas City to fill their houses and make storage charges.

From September 1 to December 1 over 2,500,000 bushels of grain were exported from Tacoma, Wash., and the prospects are that much more wheat will follow.

Geo. W. Lowrey, Lincoln, Nebr.: Each month's issue of the "American Elevator and Grain Trade" is worth the price of a year's subscription to grain shippers.

In discussing the possibilities of a vast corn trade with Europe in the future it might be well to notice that corn as a breadstuff is rapidly losing its popularity at home.

John Powers of Whiteside County, Illinois, won the first premium at the Illinois State Fair for largest yield of corn on a single acre. The record was 166 bushels and 30 pounds.

The receipts at Peoria for the eleven months ending with November show a falling off of over 6,000,000 bushels, but the receipts of corn increased about 1,500,000 bushels. The shipments of oats also decreased about 6,000,000.

The first direct shipment of wheat from Siberia to London was recently received. It consisted of four steamers of wheat, oats and flour from Nakhodka Bay, River Ob. The wheat is said to be clean, and of very good quality.

The Chicago Great Western Railway Company has just placed an order with the Pullman Company for 300 box cars with a capacity of 60,000 tons for delivery as soon as possible. This will enable the Maple Leaf to handle more grain.

A. E. Clutter, Lima, Ohio: This season has brought more wildcats and pirates into the grain business than for some seasons passed, and this of itself should be a great incentive for regular dealers to seek membership in the Grain Dealers' National Association.

It is reported that the Great Northern Road has let a contract to extend its Fosston branch across the state of Minnesota to Lake Superior, 225 miles. This will give that road a direct line from the grain fields of Dakota to Duluth and Superior, thereby saving about 100 miles from its present route via St. Cloud. It is understood that work will be commenced immediately.

A movement has been started by some of the agricultural papers which is designed to advance the interests of corn by means of an exposition to be held at Chicago in 1899. The proposed plan contemplates the formation of a corporation to take up the work in view, and that the exposition should embrace exhibits in fullest detail of the uses to which corn, both grain and plant, may be economically and usefully applied.

From Mr. T. D. Coburn, Secretary of the Kansas State Board of Agriculture, comes a neat little enameled cardboard banner entitled, "Kansas Agriculturally in 1897." In tabulated form it sets forth the quantities of farm products produced in 1897, and their values, the latter aggregating \$136,335,258. This, together with the further information given, should bring an enviable smile of satisfaction to the face of every resident of the sunflower state.



The Excelsior Brewing Co., Chicago, Ill., has been closed under a judgment for \$6,393.

The Alabama Brewing Co. of Birmingham, Ala., is expending \$20,000 in improving its plant.

The Narbeth Brewery Co. has been incorporated at Narbeth, Pa., with a capital stock of \$30,000.

The Syracuse Malting Co. has been incorporated at Syracuse, N. Y., with a capital stock of \$1,000.

At Jamestown, N. Y., the Jamestown Brewing Co. has been incorporated with a capital stock of \$25,000.

Carl Moll has been appointed as receiver to take charge of the affairs of the Cantwell Eagle Brewing Co. at Chicago, Ill.

The Leibinger Brewing Co. of Evergreen, Brooklyn, N. Y., has been incorporated to succeed Ph. Leibinger, capital \$21,000.

C. H. McLaughlin of Buffalo has started the old Co-operative Brewing Co.'s malt house on lower Main Street, Niagara Falls, N. Y.

Adolph Coors has placed in his malt house at Golden, Colo., a Barnard Elevator Separator furnished by the Barnard & Leas Mfg. Co.

The sheriff is reported to be in possession of the property of the Kootenay Brewing, Malting & Distilling Co., Ltd., at Trail, British Columbia.

At Ironton, Ohio, Leo Ebert, Matilda Ebert, Otto Ebert, and others have incorporated the Leo Ebert Brewing Co. with a capital stock of \$50,000.

The Metropolitan Weiss Beer Brewing Co. at Chicago, Ill., has been incorporated by H. W. Tuttle, M. Lippert and M. Schultz with a capital of \$2,500.

The Consumers' Brewing Co. of Trenton, N. J., will erect a brick and iron brewery, 50x85 feet, five stories and basement. The company is capitalized at \$250,000.

It is reported that negotiations are pending for a 40,000-barrel brewery to be built at Sioux City, Iowa. Jos. Baumgartner of Latrobe, Pa., is the chief promoter.

The Roedel Brewing Co. has been incorporated at Milwaukee, Wis., with a capital stock of \$25,000. The incorporators are Philip H. Klein, Baptist Roedel and J. H. Kraupitz.

The Welz & Zerweck Brewing Co. has been incorporated at Brooklyn, N. Y., with a capital stock of \$250,000. The directors are John Welz, Chas. C. D. Zerweck and John Gardes.

The big brewery at La Crosse, Wis., which burned in September and involved a loss of \$300,000, is being rebuilt larger than ever. The new plant will include a \$100,000 malting house.

D. N. Rothschild, J. A. and L. A. Ochs and Max Kohn of Davenport, Iowa, with some Peoria men, are going to build another brewery in Davenport. The plant will cost about \$150,000.

The 125,000-bushel storage elevator of the Froedert Bros. Grain and Malting Co. at Milwaukee, Wis., was recently completed. It is said to be one of the finest elevators in the country.

It is said that Adolph Broza of Philadelphia, Pa., representing a syndicate of four New York brewers, will build a brewery in Wilmington, Del., with a capacity of 200,000 barrels per annum.

Thomas Mohle, a driver for the Union Brewery, Union Hill, N. J., on November 30 lost his way in the dark on the second floor of the brewery and fell down the elevator shaft and was killed almost instantly.

The International Drier Co. of Milwaukee, Wis., has been incorporated with a capital of \$60,000 to manufacture machinery for drying and cleaning seeds and grains. The incorporators are Cassius M. Paine and Geo. W. Marling.

Very little barley is sold by grade on the Chicago market, and the work of the inspection department will be ignored as long as the department ignores the demands of the trade for a grading based on the malting value of the grain. Reform in the

method of inspecting barley is needed in all markets.

At the Tennessee Centennial Exposition the Diploma of Honor with Gold Medal was awarded to the Wm. Gerst Brewing Co., Nashville, Tenn., on draft beers, and to Christian Moerlein Brewing Co., Cincinnati, Ohio, on bottle beer.

The knowledge that barley is one of the articles which it is proposed that Canada and the United States shall put upon the free list carries one back to the time when this commodity was one of Canada's chief articles of export, and not one of the least, as it now is. Fifteen years ago our exports of barley were valued at no less than \$10,114,623, but in 1892, ten years later, they had dropped to \$2,613,363, while last year they were only valued at \$316,029, a decline since 1882 of about equal to \$2 per head of population. The removal of the present tariff restrictions in the United States would, doubtless, stimulate Canada's defunct barley industry, but as to whether it will ever again assume its old-time importance is another question. It would, however, be agreeable to be given a chance to try what could be done, for the knowledge that the total exports of barley are about 80 per cent. less than they were even as far back as the year after Confederation, is humiliating to say the least.—Canadian Grocer.

Frank L. Benepe, of the grain firm of Benepe-Ownhouse Co., Bozeman, Mont., has made the following statement in regard to the crops in the Gallatin Valley: "There will be more grain shipped from Gallatin County this year than ever before. I estimate that about 500,000 bushels of barley will be sent out of the valley, and a large part of it will be exported. Each year increases the fame of the Gallatin Valley barley, so that we now have a certain market for all that can be produced. We can't begin to fill our orders for barley this year. I suppose that we ship half of the barley sent out of the county, and so we are in a position to keep in touch with the demand for grain. Not long ago we were asked by a firm in Scotland for an estimate on 250,000 bushels of Montana barley. We could give none, for it would have been impossible to secure the grain. We have had to refuse numerous orders for from 10,000 to 20,000 bushels of barley this year. Germany, England and Scotland have taken a large part of the barley exported from Montana this year, but shipments have been made also to Holland, Bavaria and Italy."

JUDGING MALTING BARLEY.

The grading of barley by its physical appearance is so thoroughly unreliable it is to be hoped that the practice will be stopped or the method changed. It is not an easy matter to tell the malting value of barley by a superficial examination. The following taken from a paper read at a meeting of brewers in Munich contains some excellent pointers:

In connection with the physical examination of the grain, considerable importance is attached to a light color; this is not always a reliable indication of quality, since the production of colorless matters may occur in the process of ripening without any consequent ill effect on the barley. When the apex of the grain presents a brown or blackish appearance, however, the germinating power will be affected as a result of the combined action of moisture and bacteria. The admixture of 6-rowed barley—detectable by its crooked shape—causes heating and irregular germination, and barley from land manured with sheep dung is said to possess a disagreeable odor as well as containing a larger percentage than usual of nitrogenous matter. To ascertain the percentage of glassy grains, either a section cutting machine or a diaphanoscope is recommended. The cause of the vitreous condition is but little understood, but as Johannsen has succeeded, by simple treatment with water and gradual drying without heat, in converting glassy grains into mealy ones, it cannot have much influence on the yield of extract.

The germination test gives the best indication of malting power, revealing the existence of mold and defective grains as well as the presence of old barley and such as is liable to heat. By means of Aubry's apparatus, wherein the moistened sample is maintained at 23° centigrade, the percentage of germinating grains can be determined in three days. This

embryo test is also useful in this particular. This consists in boiling the barley in a beaker of water to which is added a little concentrated caustic soda, whereupon in about 20 to 30 minutes the shell of the grain dissolves and exposes the embryo, which should be comparatively firm and of a wax-yellow color. Defective germs are soft and gray or brownish black.

In taking the weight per standard volume the percentage of water present must not be left out of the calculation, and may be determined by drying and observing the loss of weight ensuing thereon. Beyond this point chemical analysis becomes necessary, and is, in fact, the only method whereby complete information as to the value of the barley for brewing purposes can be obtained, and the practices of sulphuring and oiling for the purpose of improving the appearance of the grain detected.

As regards the percentage of nitrogen, Kraus found this and the vitreous condition vary with the condition of the soil in which barley is grown, and Kraus and Ulrich discovered that very glassy grain corresponds to a high nitrogen content, and vice versa. The average weight per thousand grains as determined by these investigators from a large number of samples is 40 to 42 grains, and the weight per hectoliter 65 to 67 kilograms (=6½ to 6¾ pounds per gallon), the mean percentage of germinating grains in a good malting barley being 97-98. The average composition is as follows: Water 14, and dry matter 86 per cent.; and the constitution of the latter: Protein 10.6, crude starch 63-70, and ash 2.8 per cent.

Dr. Emil Pott, in the Vienna Agricultural Journal, directs attention to the fact that light colored, loosely packed, crisp, or in other words unspoiled malt screenings, belong to the readily digestible concentrated feedstuffs, and constitute a highly nutritive food. When given in proper proportion with other feed substances, improve the digestive and assimilative faculties. They can also be fed to milch cattle as they promote the secretion of milk. Great care should be taken, however, to avoid spoiled screenings, that is, those that are discolored (too dark), very much matted together, or that fail to emit, when stirred with lukewarm water, a pleasant aromatic odor. The greatest care must also be taken in storing malt screenings, as they readily absorb moisture from the air, and if the place of storage is not dry and airy they soon become musty and moldy. Screenings containing much sand are injurious to young stock. Screenings that have been stored for a long time, owing to their indigestible character, are worthless for feed. When used for feed they should also be free from chaff, coal dust, foreign seeds, and mineral impurities.

A GRAIN DEALER WINS LAW SUIT.

The case of Warren & Co., grain merchants of Peoria, Ill., against Patrick Scanlon, which has been in litigation for years, is at last settled. The Supreme Court affirmed the decision reached by the Appellate Court last December, giving a judgment to the plaintiff. Patrick Scanlon, the defendant, was a wealthy farmer living near Princeville. He had farmed there for many years with success, and was well known and respected. In the business transactions incident to marketing his grain, Mr. Warren became quite well acquainted with him. Six years ago, Scanlon moved to Peoria, and shortly thereafter he and Warren & Co. were dealing together quite extensively. For a year and a half Scanlon was fortunate, and the business relations between him and the grain firm were of a very agreeable character. With the approach of the panic, the Princeville man got a good quantity of dollar wheat on hand. The price declined, and being devoid of the necessary ready money, he entreated the grain company to hold it. He was treated most liberally, but the price went down rapidly, and the time came when Warren & Co. had to act or become involved for a large amount. Scanlon was duly warned that unless he put up some money the wheat would have to be sold. Failing to comply with the requirements of the company, the wheat was disposed of. In September, 1893, suit was filed by Warren & Co. to recover their loss. It was tried in June, following, before Judge Shaw, it being a jury waived trial. A decision in favor of the defendant was given, and the case was carried to the Appellate Court by the plaintiff. There the decision of Judge Shaw was reversed and remanded. Then it was again tried in the Circuit Court in December, 1896, before a jury. In this instance Warren & Co. were given judgment. Scanlon appealed the case, and in December last the decision was affirmed. Taking it then to the Supreme Court, it was tried at the present session with the result as stated.

For the nine months ending September 30, the Argentine Republic exported 167,520 tons of linseed, against 220,437 tons for the corresponding months of 1896. The Argentine ton equals 2,204 pounds.

Fires - Casualties

Sparling Brothers' grain house at Bowdle, S. Dak., was burned on November 18. Its capacity was about 10,000 bushels.

On November 15 7,000 bushels of rice on the Houston Clich plantation in Camden Co., Ga., were destroyed by fire.

A granary belonging to Laurence Hastings at Snow Hill, Md., was almost entirely destroyed by fire November 16.

The Sleepy Eye Milling Co.'s elevator at St. Lawrence, Minn., was burned December 10, with 2,000 bushels of wheat.

The warehouse of the Ravenswood Distillery Co. at St. Louis, Mo., was destroyed by fire November 23. The loss is \$90,000.

A fire in the dryhouse of the Atlas Distillery at Peoria, Ill., on December 8, caused a loss of \$15,000, fully covered by insurance.

The elevator of W. D. Cassell & Co. at Gridley, Ill., was burned recently with 15,000 bushels of grain. Loss \$8,000; insurance \$3,500.

White & Wilson's elevator at Hennings, Ill., was burglarized recently, a couple of overcoats and a small amount of money being taken.

The grain warehouse of T. H. Eckerd at Taneytown, Md., was burned November 26. Loss estimated at \$12,000, with an insurance of \$5,400.

The elevator on the Illinois Central R. R. at Macy, Iowa, was burned, together with its contents, on November 22. The fire was started from a prairie fire.

The elevators of the Turuer-Hudnut Co. and McFadden & Co. at Kilbourne, Ill., suffered heavy damage by fire November 20. The fire originated in an adjoining store building.

The Middle Division Elevator Co. suffered a fire loss on November 28 at Graymont, Ill., of \$8,000 on grain, and \$1,000 on building. It is said to be fully covered by insurance.

John Shea's grain storehouse at Lawrence, Mass., collapsed November 20, owing to the posts supporting it rotting away. The building was a total wreck, and considerable grain was lost.

The Northwestern Grain Co.'s 50,000-bushel elevator at Sheldon, Iowa, burned to the ground on November 21, with 10,000 bushels of small grain. The loss is said to be fairly covered by insurance.

On November 12 a steam radiator exploded in the office of the Chesapeake & Ohio Elevator at Newport News, Va. Several persons were painfully injured by the escaping steam, and from jumping through the windows.

Early on the morning of December 5 the new elevator of F. S. Brownfield, together with 5,000 bushels of corn, was consumed by fire at Craig, Mo. The origin of the fire is not known. Insurance will cover about two-thirds of the loss.

On the evening of November 23 a fire broke out in the elevator and corn mill of W. P. Hale & Co., Providence, R. I., and damaged the plant to the extent of \$10,000 before it was brought under control. The loss is fully covered by insurance.

The Jay-Negus Elevator at New Breunen, Ohio, was entirely destroyed by fire at 2 a. m., December 2. The building was insured. It contained \$4,000 worth of broom corn insured for \$2,500, and 800 bushels of corn belonging to Henry Dierker; no insurance.

Gilbert's elevator and feed mill at Clay City, Ind., was completely destroyed by fire on November 27. Considerable wheat and corn and \$1,000 worth of clover seed were burned. The loss is said to be between \$3,000 and \$4,000, partially covered by insurance.

The net loss on the Farmers' Alliance Grain Warehouse at Genesee, Idaho, which was burned November 2, will not be more than \$15,000 to \$20,000, as about \$35,000 has been realized from the sale of damaged grain, and the insurance amounted to \$45,000.

The plant of the National Cereal Co. at St. Louis, Mo., was almost entirely destroyed by fire on November 23. An employee carrying a torch went into the basement to clean out a corn bin, which soon resulted in a dust explosion. The total damage amounted to about \$15,000, which is covered by insurance.

The floating grain elevator Columbia, working alongside the big Hamburg-American Line steamer Pennsylvania, at Hoboken, N. J., was discovered to be on fire at 4:30 a. m., December 4. The Columbia was towed into midstream, and while the tugs and fireboat were playing great streams of water on her the boilers burst. It was then impossible to save the elevator, and she was towed to Castle Point,

where she was beached. The vessel is almost a total wreck, causing a loss of \$45,000. The fire is believed to have started in the waste in the engine room.

On December 1 the grain and feed warehouse of Cook & Bentz at Dillsburg, Pa., was totally destroyed by fire. It contained 5,000 or 6,000 bushels of grain, some of which belonged to farmers, besides considerable baled hay, etc. The loss is probably \$7,000, partially insured.

The Royal Elevator Company's elevator at Enderlin, N. Dak., caught fire and was completely consumed November 23. The fire is supposed to have caught at the top of the elevators from friction. There were about 12,000 bushels of wheat in the elevator at the time. Loss \$16,000.

The Collin County Milling Company's grain elevator at McKinney, Texas, collapsed on the night of October 11, and about 85,000 bushels of wheat poured out over the ground. The grain was only slightly damaged, and was removed to convenient freight cars. A weak foundation was the cause of the wreck.

Charles Guckenberger, a well-known grain man of Cincinnati, Ohio, met with a peculiar accident last month while walking in the park with his grandchild. In springing forward to save the child from a fall, he fell heavily, dislocating his shoulder. He immediately lost his power of speech, and did not recover it until the bone was slipped back in place.

On November 15 a fire, supposed to have been caused by friction of a conveyor belt, broke out on the third floor of the five-story grain storage warehouse at the foot of Joralemon Street, Brooklyn, N. Y., owned by the New York Warehouse Company. The flames were extinguished with a loss of \$1,500 on grain stored in the building, and \$100 to the building.

On the evening of November 22 the elevator of the Kirkpatrick Grain Co. at Penfield, Ill., was discovered to be on fire, and as the town has no fire protection, it soon burned to the ground along with the grain in store, consisting of 6,700 bushels of shelled corn, 4,700 bushels of ear corn, and 2,500 bushels of oats; \$2,500 insurance was carried, leaving a loss, it is claimed, of \$3,500. It is stated the company expects to rebuild at once.

On the night of November 30 the large elevator of Richardson & Sons at Kingston, Ont., was burned, together with 38,000 bushels of wheat, 6,000 bushels of oats and 6,000 bushels of peas. The elevator was built 17 years ago, at a cost of \$16,000. Estimated loss is \$58,000, on which there was \$43,500 insurance. There will be considerable salvage on the grain. The only theory advanced as to the origin of the fire is that it came from a hot box in the tower.

WHEAT RECEIPTS AT PRIMARY MARKETS.

The wheat receipts at nine primary markets during the twenty-three weeks ending December 6, for the last three years, according to the Cincinnati Price Current were as follows:

	1897-98.	1896-97.	1895-96.
St. Louis.....	8,590,000	9,128,000	8,226,000
Toledo.....	8,190,000	5,847,000	4,739,000
Detroit.....	3,354,000	2,244,000	1,577,000
Kansas City.....	21,408,000	5,282,000	5,575,000
Cincinnati.....	404,000	625,000	557,000
Winter.....	41,946,000	23,126,000	20,674,000
Chicago.....	20,057,000	15,502,000	16,151,000
Milwaukee.....	5,257,000	5,057,000	5,480,000
Minneapolis.....	41,708,000	36,869,000	42,735,000
Duluth.....	32,997,000	35,090,000	35,595,000
Spring.....	100,019,000	92,518,000	100,021,000
Total, bus. 23 weeks...	141,965,000	115,644,000	120,695,000

FLAXSEED AT CHICAGO.

The receipts and shipments of flaxseed at Chicago during the 16 months ending with November, as reported by S. H. Stevens, flaxseed inspector of the Board of Trade, were as follows:

Months.	Receipts.		Shipments.	
	1897-98.	1896-97.	1897-98.	1896-97.
August.....	813,160	1,770,160	299,108	1,060,659
September.....	696,000	1,627,480	557,895	1,399,514
October.....	424,560	2,014,920	373,312	515,159
November.....	671,870	874,640	437,218	259,916
December.....	643,272	.....	238,865	.....
January.....	362,500	.....	230,267	.....
February.....	344,520	.....	137,185	.....
March.....	307,980	.....	207,725	.....
April.....	176,900	.....	524,527	.....
May.....	164,720	.....	782,273	.....
June.....	290,000	.....	141,478	.....
July.....	251,720	.....	134,445	.....
Total bushels.....	2,605,590	8,828,812	1,667,533	5,632,013

F. A. Furst, Baltimore, Md.: Continue the "American Elevator and Grain Trade" and send me bill. I need it in my business.

PRESS COMMENT

FIREPROOF ELEVATORS.

Steel tank cerealelevators are being built at Buffalo and other American towns. These structures should prove to be far superior to the wooden elevators, but it will hardly do to call them "fireproof." The grain they contain will burn, and the dust in them will explode, quite as readily as though the walls were of wood instead of metal. The word "fireproof" is merely a relative word.—Milling World.

OPPOSED TO PAYING FOR CROP REPORTING.

What are the qualifications for desirable crop reporting work? If there be money remuneration is there not likely to be service which is rendered more for the money than from the desire or ability to report with full intelligence and judgment? Is there not in every locality someone who is capable and who would gladly contribute the needful effort for the sake of reporting his section as accurately as possible? We do not believe in the merit of the pay system, for crop information. It would tend to belittle the importance of appropriate returns.—Cincinnati Price Current.

TO INCREASE USE OF CORN.

The best point about the proposed effort to increase the use of corn at home and abroad is the economy with which the work can be conducted. This international effort to lift the price of American corn does not require any additional appropriation. It will be sufficient if half of the money that is now wasted in the government seed shop be devoted to carrying out this very practical idea for permanently widening the outlet for our greatest of all crops. In other words, we propose that money which is now being squandered by the department of agriculture shall be used by it to directly benefit every farmer in the land.—American Agriculturist.

BREAD FOR ALL.

It has been stated at home and abroad that America holds the key to the situation. It does so hold the key, but with the numerous duplicates to the key in the hands of dealers, the unlocking of the granaries cannot be controlled, for each dealer can unlock a bin or more, and so every other dealer unlocks his. There is in this way a steady flow, and there will be while our stocks hold out, in the face of theories of the "key to the situation." Nothing can be expected from the southern hemisphere before about April, but there has been steady accumulation in Europe since our harvest moved, and with the more that will be shipped from all about the world there is reasonable assurance that none will go hungry for bread before another harvest, if he has the means to pay for it, although prices may be higher than now.—Minneapolis Market Record.

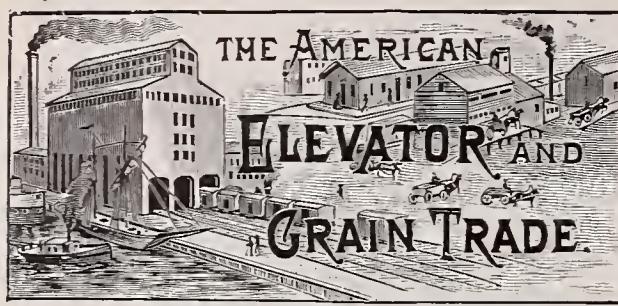
POSSIBLE POOLING AS AFFECTING RATE DEMORALIZATION.

It is probable that the persistent and extreme demoralization in freight rates which now exists in trunk line territory may be fairly taken as an index of the opinion of the lines in interest on the question of legislative action concerning pooling during the coming session. In fact no other theory would seem to be sufficiently inclusive to account for the situation. Tonnage is abundant, and obligations are far from pressing, while money is obtainable without asking, and there would therefore seem to be no good reason, or, indeed, no possible excuse for the present situation, except for the presence of some controlling factor outside the question of immediate earnings. It would seem, therefore, that in the absence of other adequate motives the present rate situation in the East, and possibly in other sections, may be the outgrowth of the conviction that the coming session of Congress will see the enactment of a pooling bill; and that consequently a large showing of tonnage is a valuable prerequisite. That was the old method of preparation, and naturally would be again used.—Railway Review.

EXPORTS FROM ATLANTIC PORTS.

The exports of breadstuffs, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from the Atlantic ports during the two weeks ending Dec. 11, as compared with same weeks last year, have been as follows:

Articles.	For week ending Dec. 11.		For week ending Dec. 4.	
	1897.	1896.	1897.	1896.
Wheat, bushels.....	2,340,000	1,548,000	3,661,000	980,000
Corn, bushels.....	3,637,000	3,178,000	3,857,000	2,259,000
Oats, bushels.....	1,569,000	855,000	1,799,000	408,000
Rye, bushels.....	213,000	85,000	407,000	236,000
Flour, barrels.....	468,500	348,600	258,900	282,400



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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., DECEMBER 15, 1897.

The large stocks of corn in store at grain centers in the Northwest shows that there are elevator men at points other than Chicago who are anxious to make their elevators earn storage charges.

A transient buyer has recently located at a station in Kansas and closed up two elevators by bidding more than the elevator men who pay taxes and operate an elevator can afford to pay, yet there are some elevator men who do not believe in organization.

Putting in track scales will aggravate, not remedy, the short-weight trouble. Hopper scales do not have their blades dulled by the switching of cars, and the wind, snow, hail, rain or ice does not reach them as it does the cars and the track scales. Track scales are not wanted for weighing grain.

The shortage evil is at last being honestly investigated and an earnest effort is being made to secure correct weights at terminals. It is having a good effect, too, upon the individual weighmen at points of shipment as well as at points of destination. It cannot be doubted that many of the shortages are due to carelessness on the part of the weighmen.

The Directors of the Chicago Board of Trade have adopted resolutions rescinding a former endorsement of a proposed amendment to the Interstate Commerce Law permitting pooling and have declared against any and all propositions to amend the law so as to permit pooling. In the days before the law the carriers had all kinds of pools, yet the amount of discrimination practiced was even greater than it is at

present. The real purpose of the champions of the pooling amendment is to tear down the law piece-meal.

The report of Chief Inspector Noble of Chicago shows that the inspections for the year ending October 31 were the largest in the history of the department, 426,308,415 bushels of grain being inspected. There were but 59 gradings taken to the Appeals Committee, and of these the inspector was sustained by the Committee in 35 cases. This is truly a very creditable showing and leaves little room for complaint against the department's work.

So quickly has the industry developed that few people realize that cellulose made from the pith of cornstalks is already a commercial article and that a number of factories are in active operation. The company controlling the patents is capitalized at \$50,000,000. For this cornstalk cellulose there is claimed to be practically no limit to its uses and the demand for it. The meal made from the outside of the cornstalk is claimed to be as valuable for feed as timothy hay. One of the surprising things about corn is that new uses are constantly developing for it, so that it bids fair to occupy in this country the position which the palm holds in some parts of the world.

An English agriculturist named Garton has aroused considerable discussion by an announcement that, by crossing, he has succeeded in producing some bran new cereals. He asserts that he has worked on grasses, clovers, cereals not hitherto artificially commingled, and other food plants. It is said that some of the coarser grains not edible by human beings have been made so by his combinations with others that are richer in life-sustaining elements. We suppose there is nothing intrinsically impossible in this. The oldest grains used by man, wheat and barley, have departed so widely from their original form that botanists do not know their origin. The incredible thing would seem to be that Mr. Garton has done in a few years what it took ages to do with our present cereals; transform them from insignificant beginnings into grains suitable for man's use.

St. Louis people are always loyal to their city and the situation in the grain trade has alarmed them. The fact is pointed out by local papers that since July 1, Kansas City has received 20,000,000 bushels of grain, or four times as much as St. Louis. It is true that a very large share of the Kansas City grain was handled by St. Louis exporting firms, but the danger pointed out is that people usually buy where they sell. The confessed reason for the excess of Kansas City's over St. Louis' receipts is that the former city has secured gulf outlets and cheap rates. The remedy proposed is the utilization of St. Louis' natural advantage of location on the Mississippi by barge lines that will take grain down the Mississippi at a cost placed as low as 3 cents per 100 pounds. The plan is simple and involves no sort of revolution; simply the adoption of means to hold trade in what ought to be a natural channel for much of it.

NOT A PRICE PROPHET.

A gentleman in the Northwest recently wrote us, asking a series of questions, as follows: "Can you form an opinion as to the future of wheat prices? Has Argentina a large crop to export? Will wheat be higher in the next five months or go down? Will you be kind enough to answer these questions?" One of these questions was entirely legitimate and was answered accordingly; that referring to Argentina's probable or possible exportable surplus; but how about the other questions?

Of course we have an opinion as to the future of wheat prices, and so has every man who is at all interested in the trade. But that is no reason why we should impart that opinion to another person, especially when we know he wants to get opinions or data enough together to justify him in staking his money on the course of the markets. We don't grudge him our views, but we would not like to see him or anyone else backing our opinion with money, when we would not do so ourselves. It is a common belief that editors ought to be pretty good authority on such things; perhaps they ought, but they are not, just the same. It takes more than an editorial tripod and some columns of statistics to manufacture a prophet. We could point to some horrible examples of prophets of Baal in the editorial chair, but out of brotherly kindness we refrain. There is always an over-production of advice on the market and it is easy to tell someone what to do with his money. These two facts account for the flourishing number of prophets. But the editor of this journal is not one of them. Without shame and without remorse, he confesses that he does not know what the price of wheat will be five months hence.

LICENSE FEES FOR IRREGULAR BUYERS.

It seems somewhat ridiculous that the regular merchants of a town, the merchants who locate and strive to build up a permanent business, pay taxes to help support the schools, fire department and government, should hesitate a minute to demand the protection of the local government from the sharpers who drift about from town to town and by devious methods capture much business that rightfully belongs to the established merchant.

No village profits by having a Cheap John fakir open a store for a few months to auction (?) off a lot of worthless jewelry, silverware or general merchandise shipped in for the special purpose of working suckers. The transient storekeeper, like the transient grain buyer, does not hesitate to impose upon the rustics at every turn; he does not expect to stay long, has no care for the future trade of his store or the town, so makes the most of every opportunity. The sharpers always get some trade that rightfully belongs to the regular merchants, and they generally bring the town's market into disrepute.

These transient merchants seldom stay long enough in a place to share a portion of the burden of taxation and often disappear without paying rent or other bills. The irregular grain dealer has little rent to pay, as his office is generally under his hat. These transients

contribute nothing to the support of the churches and give little if any patronage to the other merchants of the town. No reasonable person can distinguish one profit that will accrue to a village by tolerating the transient merchant; and surely those with whom he competes will not profit by his sojourn.

In justice to the regular merchants who help to support a town and its institutions, the local government should enact and enforce an ordinance requiring all transient merchants to give a bond and guarantee to continue in business in the town for at least one year, or else pay a license fee each month. If the grain merchants and others who suffer from the visits of these nomads would get together they could easily bring sufficient influence to bear upon the town council to have such a law enacted. In justice to his business every regular grain dealer should insist upon having such protection from the scoop-shovel man.

TO RAISE THE PRICE OF CORN.

This country, in an average good year, can be expected to raise 2,000,000,000 bushels of corn, figures that are almost beyond comprehension. The price which this enormous crop brings is not only a vital matter to farmers, but to every branch of trade. An increase of ten cents a bushel in price would mean \$200,000,000 additional to our farmers, an amount greater than the assessed valuation of many states. But so long as corn is raised from Canada to the gulf and can so easily be produced in excess of home demand under present conditions, how is it possible to raise the price?

In one way only. The demand for corn must be increased by an enlarged appreciation of its uses and value, particularly abroad. For this purpose, The Orange Judd Farmer proposes that An International Exposition, devoted to the corn plant and its products, be held in Chicago or Buffalo in 1899. This exhibition should show the corn plant in all stages of growth and of every kind and variety. The uses of the grain should be shown by exhibits of all forms of corn food preparations, as well as the stock feed by-products. It suggests that every product of corn, including alcohol, syrup, etc., be shown, and the prizes be offered for new inventions and preparations of corn and new methods of utilizing the fodder, fiber and husks. The scope of such an exhibition, it will be at once apparent, would be very great and would possess an educational value difficult to overestimate. It would do valuable missionary work among our own people who do not half appreciate the value of corn, and here is where the work of educating a demand should begin. After the exhibition is over it is proposed to remove the essential features of it to Paris, for the exposition of 1900, and then to some of the principal cities of Great Britain and the Continent.

Such an exposition on a comprehensive scale would advertise corn. It would create a demand, and a legitimate demand is the only lasting way of enhancing the price. It could do on a large scale in Europe what Col. Murphy sought to do without proper help or recognition from our own people. Such a plan ought to enlist the money and services of great inter-

ests that depend upon corn and who would profit largely by an object lesson of this kind properly conducted. We hope the plan will be carried out.

THE EXTORTION CASES NOT SETTLED OUT OF COURT.

The members of the Grain Shippers' Association of Northwest Iowa are much encouraged by the action of the railroad companies in continuing their persistent efforts to effect a settlement, out of court, with the individual dealers who are plaintiffs in the famous extortion cases. It is an acknowledgment of the fact that the corporation lawyers recognize the weakness of their side of the case and believe that the repayment of excess charges can be averted only by inducing enough of the plaintiffs to desert the fight to discourage the others from making any further attempt to collect the excess freight.

As is shown by the communication of Secretary Babcock in this number, only one dealer has settled out of court with the railroads, yet the defendants took advantage of this settlement and sought to stampede the plaintiffs by sending out a number of dispatches containing the misinformation that all of the cases had been settled out of court. The dealers cannot be misled by any such trick, in fact, it will but serve to strengthen their loyalty to the cause.

BOGUS BILLS OF LADING.

The mulcting of several Cincinnati commission firms by means of bogus bills of lading again emphasizes the necessity of receivers confining their acceptances to regular established dealers or of investigating the validity of bills of lading before advancing money on them.

The irregular hay and grain shipper who jumps into a market here to-day, elsewhere tomorrow, has no thought for future business. His object is present profits alone. He does not know tenants from landowners, and does not care if he ship a carload of hay on which the landlord has a lien and the receiver has to pay for it a second time.

If the receivers would get together and agree not to do business with the transient shippers they would avert the many troubles arising from recognizing the tramp shipper and win the undying gratitude of the regular dealer. The business any receiver gets from this class of shippers is so small that in the end he profits very little, if any, by it, so he would not be required to make much of a sacrifice in entering into such an agreement. By joining the Grain Dealers' National Association or any of the local associations, the receiver agrees not to do business with tramp shippers, and his membership advertises that fact to the regular dealers.

In addition to these precautions against being swindled by means of forged bills of lading, it would seem a very easy matter to induce the railroad company to guard more vigilantly the rights of the receivers, who are accustomed to honor such bills. There is no necessity of giving out blank bills of lading, in fact, the station agents open the way for fraud and tempt the tramp shipper to commit forgery when ever they let them go out. The blank bills should be kept locked up and filled in by railway agents only.

GRAIN CARRIED BY THE ERIE CANAL.

Some of the New York newspapers are publishing very narrow minded arguments against the Erie Canal boatmen because they did not carry a larger per centum of the grain shipped to the seaboard from Buffalo during the season of navigation just closed. The very existence of the old rate regulator served to keep rates down to a figure that attracted much grain to Buffalo and New York that would have gone abroad by other routes had the railroads been left to make what rates they pleased.

The trouble is more with the New York laws than with the canal boatmen. By amending the laws governing the rates charged for handling and storing grain so as to require every elevator handling grain for a compensation to transfer grain at the rate provided by law, or for one-fourth of a cent, the state can stop one form of discrimination against the canal which unjustly diverts much grain to the rail carriers that would otherwise go by canal. Grain transferred from lake vessels to canal boat by a pool elevator pays seven-eighths of a cent, while the transfer fee is absorbed in the freight charges when the grain is loaded out into cars. About the only grain that goes by the canal is transferred by the small independent elevators which have no storage room.

The pool elevator managers use every influence they can bring to bear to discourage shipments via canal. They delay loading as well as receiving and make no effort to give the same service to canal grain shippers as is received by rail shippers.

The free storage at New York given by the railroads when found necessary to capture shipments also militates against the canal. It is not a fair fight for business, but a contest to see how soon the rail carriers can bring about the abandonment of a water route that has done more than all the rail routes to establish and maintain the commercial supremacy of the state's metropolis.

TO IMPROVE CROP REPORTS.

The Statistician of the Department of Agriculture has in his annual report outlined a practicable plan for improving the Government Crop Reports. He favors the employment of intelligent and experienced reporters in the twenty-five states producing most of the agricultural products and the confining of each to a specific territory. It is expected to increase the reliability of the reports and at the same time reduce the number of reporters. The present corps of reporters seems to be poorly arranged and the system too cumbersome to be effective. All this sounds well and it is to be hoped that it will be given a fair trial, for surely the reports can be greatly improved.

The Statistician further recommends the prominent display in rural postoffices of brief reports on the condition of the staple crops and the prices ruling in the principal markets and on the prospective requirements of foreign countries. The newspapers now distribute the Government reports on the crops more promptly and more thoroughly than the statistician could ever hope to, even were the treasury at his disposal.

EDITORIAL MENTION

You can get this journal out of its wrapper very easily by pulling the thread which is under the wrapper.

Some buyers always advance a very flimsy excuse for not accepting grain when the market goes against them.

The Kansas Grain Dealers' Association will hold its annual meeting at Topeka, January 11 and 12. The Association is growing and doing much to advance the interests of its members.

The newspaper reporters, with their usual abhorrence of truth, have recently scented another corner in wheat and credited the work to every man prominently identified with the grain trade.

Notwithstanding that carriers admit the fairness of paying a loading fee to country elevator men who operate elevators, store and load grain into cars, they will never concede the fee unless the elevator men persistently demand it.

The locusts seem to be getting worse and worse in the Argentine. About the only thing they are not credited with devouring is the crop liars, and we presume that even a locust must be a little particular as to what he takes into his stomach.

The grain hospitals in the different terminal markets are not paying prices that encourage the shipment of much off-grade grain. It would pay many of the country elevator men to put in dryers and cleaners so they can improve low-grade stuff at home.

According to an Iowa daily newspaper, which knows nothing about it, our wheat exports to Japan have increased 300 per centum during recent years, and in 1896 amounted to 31,408,314 bushels. This is startling. If true, the Japanese trade is worth looking after.

The Grain Dealers' National Association has inaugurated a new scheme for protecting its members from the unreasonable competition of irregular dealers. Not only the members of other lines of trade will be induced to help, but the journals representing those lines of trade and the local newspapers will be used to place an effective check upon the irrepressible scoop-shovel man.

There are some persons who still have hope of the Interstate Commerce Commission being given sufficient power eventually to carry out the work originally intended for it. Some of these persons are Congressmen, and even the father of the original bill evidently entertains some such hope. Some amendments to the law have already been introduced into Congress and many others are proposed. This persistent effort to prevent discrimination by carriers is indeed promising, but the desired re-

sults would be much nearer attainment if the work was done more vigorously and systematically.

A New York firm is preparing to make an extensive exhibit of corn as a food for man at the Paris Exposition, and a Corn Exposition is to be held at Chicago in 1899 for the same purpose. The work is surely commendable and merits the hearty support of every corn grower.

The French ministry proposes to carry out the pet scheme of the Farmers' Alliance and make government loans to farmers. But it is all at sea as to how much money will be required, how many farmers will want the loans, and, most of all, where the money is to come from.

An Illinois grain dealer who recently opened a new elevator at Manteno aroused the farmers and induced them to take considerable interest in the opening of it by advertising that he would pay 50 cents a bushel for the first load of corn received and 30 cents a bushel for the first load of oats. This plan has been tried before and always proved a trade winner, for the first day at least.

The record for 1897 of the shipments of wheat from Port Arthur and Fort William was completed on December 10, when navigation closed. The total amount was 17,600,000 bushels, against 12,600,000 in 1896, and 10,550,000 bushels in 1895. No wonder our Canadian friends get disgusted when anybody intimates that it is too cold up in Manitoba to raise anything much.

St. Louis merchants have at last determined to utilize their water route to the seaboard, and will establish a line of steel barges to carry grain between that city and New Orleans. It would seem that a well equipped barge line could carry grain cheaply and satisfactorily. Like the Erie Canal, such a line should be able to effect a material reduction in the rail line rates as well as divert grain shipments to its terminal.

Regular grain dealers have reason to be much encouraged by the success of A. C. Sherman of Rossville, Kans., in his suit against the U. P. R. R. for money expended in repairing and cleaning the company's cars so as to make them fit to ship grain in. The railroad company will probably appeal the case, but will not win if the regular grain dealers will stand by the plaintiff and give him enough assistance so he can employ able counsel to represent him. His success means much for all grain shippers.

Vesselmen on the great lakes have had a full season's experience with deep water channels and they estimate that it has caused a depreciation of vessel property more than enough to pay for the channels. Apparently the twenty-foot channels was all that was needed to seal the fate of the small vessels. Rates have been so low for most of the season that only the larger vessels have been able to come out without losses. The rate on corn from Chicago to Buffalo has averaged 1.38 cents. Part of the time the rate was less than a cent. The vesselmen meet at Cleveland December 15

to see if it is possible to arrange for rates that will be remunerative. The problem is a tough one, because a rate that will pay the big vessels would not pay the small ones.

The warehouse registrar, who permits grain to be shipped from a public warehouse before the storage certificate is canceled, is courting trouble, and if he continues this practice after once being warned by the trade he will not be in a position to enlist the sympathies or even the fair consideration of the members of the trade when he gets caught for the value of a cargo, as he surely will do.

The National Board of Trade is now in session at Washington, D. C., and will soon send out the usual crop of long-drawn-out resolutions. After they have resolved to their complete satisfaction the delegates will return home and leave the world to work out the reforms indorsed. If the National Board would do more work between meetings some of the reforms so long desired might be effected.

On top of the announcement that the Argentine would have from thirty to forty million bushels to export from the present crop comes the sensational story of almost incredible destruction by the locusts and of the destitution of the people. If one believes all the stories that hail from the Argentine (but are manufactured in Liverpool, New York and Chicago), he puts an awful strain on his mind.

An able contemporary remarks that the United States is the only country in the world that produces Indian corn or has been able to grow it to perfection. This is very flattering to our national vanity, but is several hundred miles from the truth. Corn grows in Mexico, Central and South America, and to perfection in the Argentine. It grows in Italy, Roumania, Egypt and Russia. In Italy it is the staple food in some localities. With these and a few other exceptions the United States has a monopoly on corn.

According to the report of the Bureau of Statistics, breadstuffs exported during the eleven months ending with November were valued at \$213,596,427, against an amount valued at \$154,656,770 for the same period of 1896, and the breadstuffs exported in November were valued at \$28,622,774, against an amount valued at \$19,146,050 in November, 1896. The exports during the eleven months ending with November, compared with the same period of 1896, were: Wheat, 95,734,991, against 74,304,987 bushels; corn, 168,532,963, against 113,643,364 bushels; oats, 45,185,153, against 26,352,318 bushels; rye, 9,233,663, against 4,824,935 bushels, and barley 15,121,271, against 13,678,471 bushels. The amounts exported in November, compared with November, 1896, were: Wheat, 16,332,661, against 10,165,933 bushels; corn, 13,236,780, against 12,653,253 bushels; oats, 7,574,095 bushels, against 2,554,438 bushels; rye, 1,160,119, against 1,017,027 bushels; barley, 1,300,313, against 2,201,383 bushels; wheat flour, 1,240,798, against 1,259,821 barrels; corn meal, 56,322, against 32,556 barrels, and oatmeal, 6,283,144, against 4,497,127 pounds.

Trade Notes

Chicago dealers in grain handling machinery report a satisfactory business for the fall months.

The Steel Storage and Elevator Construction Co. of Connersville, Ind., has decided to move to Buffalo, N. Y.

The Leather Belting Manufacturers' Association at its annual meeting in New York last month decided on an advance of 25 per cent. in the price of belting.

A permanent exposition of machinery was opened at Lima, Peru, on December 2. Foreign machinery intended for exhibition is admitted into the country duty free.

The St. Louis Gas and Gasoline Engine Works has been formed by O. Larson and F. Gastrich, to engage at 2525 South Second Street in the manufacture of a gas and gasoline engine patented March 7 of the current year.

A Maine man has succeeded in utilizing leather dust and scrap by a process so far kept secret, so that he produces fiberized leather which is used for a number of purposes. One purpose to which the inventor proposes to put it is the manufacture of pulleys.

The Moloney-Bennett Belting Co. of Chicago has been incorporated under the laws of Illinois. The capital stock is \$50,000. The incorporators are: James Moloney, Frank S. Bennett and N. Moloney. Both Messrs. Moloney and Bennett were formerly with the Chicago Belting Co., and Mr. Bennett, prior to that connection, was with Munson & Co.

The Foos Mfg. Co., Springfield, Ohio, has recently completed an electric plant for its factory, and its plant is now one of the modern, busy manufacturing establishments of Springfield. The necessity for the addition to the factory is found in the fact that the plant has been run night and day most of the time during the past six months, and even then the company fell behind on orders.

H. S. Cover, South Bend, Ind., has recently been granted a patent on an improvement in his well-known "Perfection" Dust Protector, which adds still more to the efficiency and usefulness of this popular device. There are thousands now in use, and interested readers who are troubled with dust in their work in the elevator or mill, and every worker is, might do well to write to Mr. Cover for a circular giving full information.

The Cincinnati Corrugating Co., Piqua, Ohio, states that it has enjoyed a very flattering demand during the past few months for its various specialties such as iron roofing, siding, ceiling, metallic lath and terne plates. Its black and galvanized iron sheet departments have been especially busy of late. A leading feature of the company's output at the present time is the production of galvanized iron roofing in various styles; which, it is claimed, is the best roofing material in the world, as well as the cheapest, when durability and quality are considered. A complete catalogue will be sent to any inquiring person upon application and mentioning this publication.

The International Drier Co. of Milwaukee has been incorporated with Cassius M. Paine and G. W. Marling as incorporators. The purpose of the company is to manufacture machinery for drying and cleaning seeds and grain, namely, the Paine-Ellis Grain Drier. It controls the foreign patents on the drier, while the Paine-Ellis Grain Drier Co. controls the United States patents. We have just received the pamphlet of the Paine-Ellis Co. illustrating and describing this machine. The drier is designed not only for damp and wet "no grade" corn, wheat and other grain, but for washing and drying smutty and foul wheat in flour mills, drying malt, wet brewers' grains, as well as such fibrous substances as wool, leather, lumber. One special purpose of the machine is to handle salvage grain from marine disasters and elevator fires. For this purpose it is indorsed by Paine Bros. & Co. of Milwaukee, who

have handled several million bushels of salvage grain. The pamphlet shows fac-similes of a number of commendatory letters from parties who have had grain treated by the machine.

Eight different firms of the United Kingdom exhibited 15 gas and petroleum engines at the Brussels Exhibition, most of which worked constantly under the eyes of the visitors to the Exhibition. Foreign makers, nine in number, of various nationalities, contributed 19 engines, of which very few were actively engaged in producing power or electric current, and were mostly smaller than those contributed by British makers.

Thomas B. Riter, of the Riter-Conley Co., Pittsburgh, Pa., has reached home after a short absence in Europe with W. C. Coffin, the company's chief engineer, where they had gone to secure several important contracts. One of these was for the erection of two 25,000-barrel oil tanks at Rotterdam, Holland, and another was for the erection of a steel building and two steel smokestacks for the Dublin Tramway Co., Dublin, Ireland. The building at Dublin will be 250 feet long, 80-foot span, and 30 feet high. The smokestacks will be 200 feet high, and 12 feet in diameter. This will be the first invasion of the British Islands by this modern steel construction idea. The tanks at Rotterdam will be 80 feet in diameter, 36 feet high, and constructed of the finest and heaviest steel. The roof will be steel framed one-eighth of an inch thick. We imagine that it will not be long before the steel elevator will introduce itself across the water.

..Points and Figures..

The damaged grain in the burned Sturges Elevator at Buffalo, N. Y., was sold to Spaven and others for \$10,250, a trifle over 4 cents a bushel.

It would puzzle the Interstate Commerce Commission to get a schedule of freight rates which would be maintained for twenty-four hours without a rebate.—Chicago Trade Bulletin.

All receivers who have membership in any grain dealers' association should be requested to bid only regular grain dealers. Their duty to their fellow members forbids them to do otherwise.

Do not store hay in your elevator or an adjoining building. The increase in the fire hazard is likely to result in a startling increase in the cost of insurance on the elevator and its contents.

The Bloomington Pantagraph says that John Arnold of Colfax, Ill., shelled 4,000 bushels of corn one day recently. With men and dogs he killed 951 rats. A good many got away besides.

It is not generally understood that the state inspector's force do not specify dockage on rejected and no grade wheat. This is a matter that is settled between buyer and seller, and runs from 2 to 5 or 6 pounds.—Commercial Record, Duluth.

A. P. Swineford, ex-governor of Alaska, predicts that the Yukon valley will some day be the finest wheat-growing district of the world. Can it be that the entire valley is controlled by a land syndicate?

The Anti-Gambling Committee of the Civic Federation of Chicago is still prosecuting the bucket-shop men, but the supply of suckers is so large that the greedy, persistent sharpers open in a new place under a new name as soon as forced to quit.

Kansas, the home of women in politics, etc., continues to add to her reputation by producing a feminine grain buyer. She is Miss Phrona Sommerson of Morland, who, in addition to her duties as station agent in that little town, is reported to be buying and weighing grain for eastern parties.

Herbert Cannon, a member of the large milling firm of Cannon & Gage, limited, of Erith, England, when in this country recently said: "The best wheat and flour which we can buy in England is the American product. It does not pay the farmers of England to raise wheat. In the first place the quality is poor, it makes bread like a rock, and is only fit to be used in making pastry. It will probably seem odd to you that only a small proportion

of the farmers in our country make their own bread. Their wheat does not make good bread, so they buy it from the baker."

The foreign and coastwise export of wheat and flour from the port of Tacoma, Wash., for the month of November, according to Harbormaster Hoflin, were 1,099,334 bushels of wheat, valued at \$909,005, and 33,483 barrels of flour, valued at \$126,930.

An estimate compiled from thrashers' figures in the Gila Valley, Ariz., shows that it produced this year 5,300,000 pounds of wheat and 2,600,000 pounds of barley. At ruling prices, the revenue to the valley from these items alone would be \$95,250—not a bad showing for an arid section from which so little is generally expected.

We have received from Hon. Washington Gardner, Secretary of State, Lansing, Mich., the Nineteenth Annual Report of the Secretary of State of the State of Michigan relating to Farms and Farm Products, for 1896-97. It is a very complete statistical exposition of the agricultural lands, climatic conditions and crop yields in that state for the years mentioned.

Much of the Missouri River grain business is being diverted to the gulf ports, owing to the high rates charged by the roads running east from Chicago and Mississippi River points. Shipments of grain from Southwestern Missouri River points to gulf ports from November 1 to November 22 were 3,475 cars, while only 1,164 cars were shipped during the same period via Mississippi River points and Chicago.

Rats have made many corn dealers sad at heart this year, and the corn in the crib seems to have suffered more than usual. If cribs were built about a foot from the ground and covered all around the bottom to the height of about a foot with a smooth surface material the rats could not climb nor gnaw their way into the cribs. Barrels half-filled with water and covered with a little bran will provide a watery grave for many of them.

The Duluth Commercial Record estimates the flax-seed crop of 1897 at 10,500,000 bushels, the surplus on August 1 7,500,000 bushels, consumption 14,000,000 bushels. It says, we still stand by our own previous estimates on the current year's supplies, viz., that surplus and crop will just about balance consumption, and that possibly some imports of Calcutta seed will be necessary, or rather that the price will be such as to make imports of Calcutta seed possible for certain uses.

There are three kinds of kaffir raised in Kansas—the red, tall or yellow, and the short or white. The short is handier to harvest, as you can drive a wagon over it in the row and cut off the heads, then cut the fodder and shock it afterward, but the grain is not as rich as the tall or yellow, shells worse, does not keep as well if left out all winter. The tall will stand out all winter, and the seed be as good in the spring as in the fall. It breaks over at the top joint and the head will hang down the stalk, but does not shell or spoil.

A large dealer in American wheat at Liverpool has complained by letter to an exporter at Baltimore that the quality of American wheat now being received at Liverpool is not up to the standard. He says the wheat is soft, and has foreign matter in it, and has to be sold to millers for what they will give for it. The wheat committee of the Baltimore Corn and Flour Exchange has made regularly careful examinations of wheat sent from this port, and they declare that the grain sent from Baltimore is excellent, both as to quality and condition, when shipped.—American, Baltimore, Md.

Only a few cars of wheat have been received by the C. P. R. land department this year from settlers in payment for land purchased from the railway company. Last year, when wheat was 38 and 40 cents a bushel, the company offered 50 cents a bushel to all settlers who wished to apply their grain on land payments, but as the market is better this fall wheat growers prefer to receive the cash. The company made well on last year's purchases, as they retained the grain until the market went up and sold at a price which gave them a small margin of profit.—Free Press, Winnipeg.

AMERICAN ELEVATOR AND GRAIN TRADE.

RANGE OF PRICES AT CHICAGO.

The daily range of prices for cash grain at Chicago since November 15 has been as follows:

November	NO. 2 R.W. WHT		NO. 2 SP WHT.		NO. 2 CORN.		NO. 2 OATS.		NO. 2 RYE.		NO. 3+ BARLEY		NO. 1 FLAXSEED	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
15	89	89	26%	27%	20%	20%	17%	17%	47%	47%	108	108½		
16	89	89	26%	26%	20%	20%	17%	17%	47%	47%	106½	106½		
17			26%	26%	20%	21	17%	17%	47%	47%	105½	109½		
18			27	27%	22	23%	17%	17%	48	48	109½	109½		
19			89½	89½	27	21%	22%	18	48	48	106½	106½		
20			26%	26%	21%	21%	17%	17%	47%	47%	105½	105½		
21			26%	26%	21%	21%	17%	17%	47%	47%	109	109½		
22			26%	26%	21%	21%	17%	17%	47%	47%	109	109½		
23	96½	96½	89½	89½	26%	26%	21	21%	47%	47%	109½	109½		
24	96½	96½	90%	90%	26%	26%	20%	20%	17%	17%	106	106		
25			26%	26%	21%	21%	17%	17%	47%	47%				
26			91	91	26%	27	21	21%	47%	48	109	109		
27			26%	27	21	21%	47%	47%	47%	47%				
28			26	26%	21%	21%	46	46½			104	104		
29			26	26%	21%	21%	45	45½			104	104		
30	96	96	25½	26	21%	21%	45	45½			104	104		
31														
Dec.														
1	96½	96½	90	90	25%	26%	21%	21%	45%	46			104½	104½
2	95	95	25%	25%	21%	21%	45%	46%			104½	104½		
3			25	25%	21	21%	46%	46%			104½	104½		
4			25%	25%	21%	21%	46%	46%			111	111		
5			25%	25%	21%	21%	46%	46%						
6	95½	95½	25%	25%	21%	21%	46%	46%			114	114		
7	96½	97½	88	88	25%	26%	21%	21%	46%	46%	114	114		
8			25%	26	21%	21%	46%	46%			110	113½		
9			25%	26%	22%	22%	47%	47%			113	113		
10			26	26%	22%	22%	46½	46½			111	114		
11	103	103	25%	26%	22%	22%	46%	46%						
12														
13														
14														
15														

* Thanksgiving.

† Most of the barley on the market is now being sold by sample.

During the week ending November 20, Prime Contract Timothy sold at \$2.65 per cental; Prime Contract Clover Seed at \$5.20@5.25; Hungarian at \$0.55@0.65; German Millet at \$0.60@0.70; buckwheat at \$0.75@0.85 per 100 pounds.

During the week ending November 27 Prime Contract Timothy sold at \$2.65@2.67½ per cental; Prime Contract Clover Seed at \$5.20; Hungarian at \$0.55@0.65; German millet at \$0.50@0.70; buckwheat at \$0.80@0.85 per 100 pounds.

During the week ending December 4 Prime Contract Timothy sold at \$2.65; Prime Contract Clover Seed at \$5.20@5.25; Hungarian at \$0.50@0.65; German Millet at \$0.50@0.70; buckwheat at \$0.80@0.85 per 100 pounds.

During the week ending December 11 Prime Contract Timothy sold at \$2.65 per cental; Prime Contract Clover Seed at \$5.15@5.25; Hungarian at \$0.60@0.70; German Millet at \$0.60@0.80; buckwheat at \$0.70@0.75 per 100 pounds.

RECEIPTS AND SHIPMENTS AT PEORIA.

The receipts and shipments of grain and hay at Peoria, Ill., during the month of November, as compared with the same period of the preceding year, were, according to R. C. Grier, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1897.	1896.	1897.	1896.
Wheat, bushels.....	38,400	80,400	5,400	70,800
Corn, bushels.....	1,355,350	1,148,150	177,950	277,400
Oats, bushels.....	969,950	1,047,500	996,350	1,642,900
Barley, bushels.....	227,500	318,100	110,400	233,000
Rye, bushels.....	12,600	11,40	3,000	
Mill Feed, tons.....	555	210	4,955	6,353
Seeds, pounds.....	90,000	251,057	30,000	153,500
Broom Corn, pounds.....	60,000	163,000	45,000	124,500
Hay, tons.....	5,420	2,098	580	440
Flour, barrels.....	27,300	23,820	24,750	23,100
Spirits and Liquors, bbls.....				
Syrup and Glucose, bbls.....				

RECEIPTS AND SHIPMENTS AT CINCINNATI.

The receipts and shipments of grain and hay at Cincinnati, Ohio, during the month of November, as compared with the same period of the preceding year, were, according to C. B. Murray, superintendent of the Chamber of Commerce, as follows:

Articles.	Receipts.		Shipments.	
	1897.	1896.	1897.	1896.
Wheat, bushels.....	61,312	70,426	41,937	54,451
Corn, bushels.....	222,740	473,064	100,420	100,652
Oats, bushels.....	202,950	361,481	92,899	133,751
Barley, bushels.....	187,826	208,556	2,100	
Rye, bushels.....	42,468	27,401	1,532	12,251
Clover Seed, bags.....				
Timothy Seed, bags.....				
Other grass seeds, bags.....				
Hay, tons.....	8,542	5,029	8,015	1,433
Flour, barrels.....	218,727	111,508	168,339	89,063
Malt, bushels.....				

A rat exterminator which would destroy or drive the rodents out of corn cribs would be welcome to many regular grain dealers.

RECEIPTS AND SHIPMENTS AT BUFFALO.

The receipts and shipments of grain and hay at Buffalo, N. Y., during the month of November, as compared with the same period of the preceding year, were, according to Wm. Thurstone, secretary of the Merchants' Exchange, as follows:

Articles.	Receipts by Lake.		Shipments by Canal.	
	1897.	1896.	1897.	1896.
Wheat, bushels.....	7,538,732	6,146,064	1,026,490	1,146,614
Corn, bushels.....	5,036,060	5,937,442	732,452	765,116
Oats, bushels.....	9,241,312	3,604,480	838,473	425,172
Barley, bushels.....	3,536,491	5,765,183	1,356,631	1,418,329
Rye, bushels.....	1,050,577	429,720	245,505	211,945

INSPECTED RECEIPTS AT CHICAGO

According to the report of Chief Grain Inspector E. J. Noble, the grain received at Chicago during November, 1897, was graded as follows:

WINTER WHEAT.

Railroad.	White.		Hard.		Red.		No. G'de.	
	2	3	4	1	2	3	4	
C. B. & Q.	11	108	97	5	7	5	5	5
C. R. I. & P.	1	359	5	1	1	1	1	1
Chicago & Alton	3	1	7	2	1	1	2	1
Illinois Central	3	1	7	2	1	1	2	1
Freeport Div., I. C.	19	1	1	1	1	6	1	1
Galena Div., C. & N. W.	25	1	1	1	1	3	2	1
Wis. Div., C. & N. W.	1	8	1	1	1	1	1	1
Wabash	1	2	3	1	1	12	7	1
C. & E. I.	2	1	2	98	1	1	12	1
C. M. & St. P.	2	1	2	98	1	1	12	1
Wisconsin Central	1	1	1	1	1	1	1	1
Chicago & Great West	1	25	1	1	1	1	1	1
A. T. & S. Fe.	1	25	1	1	1	1	1	1
E. J. & E.	37	8	1	131	35	13	13	13
Through and special	2	14	207	137	73	24	3	3
Total each grade	4	29	169	811	1	137	73	3
Total winter wheat	4	29	169	811	1	137	73	3

SPRING WHEAT.

Railroad.	Colo- rado	Northern	2		3		4		No. Grade.	White.	Mixed Wheat.
			2	3	4	1	2	3			
C. B. & Q.	11	1	6	77	706	42	1	21	4	6	6
C. R. I. & P.	1	1	97	22	1	1	1	1	1	3	3
Chicago & Alton	39	1	1	1	1	1	1	1	1	1	1
Illinois Central	30	1	45	6	1	1	1	1	1	2	2
Freeport Div., I. C.	160	10	480	37	1	1	1	1	1	2	2
Galena Div., C. & N. W.	3	13	1	1	1	1	1	1	1	2	2
Wis. Div., C. & N. W.	7	1	1	1	1	1	1	1	1	2	2
C. & E. I.	5	51	438	49	1	1	1	1	1	2	2
C. M. & St. P.	5	51	438	49	1	1	1	1	1	2	2
Wisconsin Central	8	5	1	1	1	1	1	1	1	2	2
Chicago & Great West	8	5	1	1	1	1	1	1	1	2	2
A. T. & S. Fe.	7	12	184	3	1	1	1	1	1	3	3
E. J. & E.	16	38	28	27	1	1	1	1	1	3	3
Through and special	225	197	2032	206	1	1	1	1	1	10	18
Total each grade	11	1	225	197	2032	206	1	1	1	24	10
Total spring wheat	11	1	225	197	2032	206	1	1	1	24	10

CORN.

Railroad.	Yellow.		White.		2		3		4		No. Grade.
	2	3	2	3	2	3	2	3	2	3	
C. B. & Q.	487	235	9	34	709	447	52	53	52	53	5
C. R. I. & P.	133	121	12	8	416	586	134	134	134	134	1
Chicago & Alton	426	43	162	9	710	54	30	30	30	30	1
Illinois Central	228	148	62	42	248	127	3	3	3	3	1
Freeport Div., I. C.	52	14	4	2	55	90	18	18	18	18	1
Galena Div., C. & N. W.	169	52	15	18	189	100	66	66	66	66	1
Wis. Div., C. & N. W.	1	1	1	1	1	1	1	1	1	1	1
Wabash	478	81	292	54	546	75	25	25	25	25	1
C. & E. I.	264	173	86	60	224	142	1	1	1	1	1
C. M. & St. P.	85	34	1	3	203	115	30	30	30	30	1
Wisconsin Central	2	10	1	1	30	38	5	5	5	5	2
Chicago & Great West	68	25	11	1	155	16	1	1	1	1	2
A. T. & S. Fe.	69	73	9	7	178	220	67	67	67	67	25
E. J. & E.	49	50	628	8	1	2	1	1	1	1	1
Through and special	2,515	1024	668	233	3,695	2042	435	30	30	30	30
Total each grade	653	165	6962	68	1044	433	15	18	34	614	75
Total corn	653	165	6962	68	1044	433	15	18	34	614	75

OATS AND RYE.

Railroad.	OATS.			RYE.			No. Grade.
	White.	2	3	4	2	3	
C. B. & Q.	95	11	1448	3	250	32	4
C. R. I. & P.	103	1	905	19	47	11	70
Chicago & Alton	9	2	172	3	80	9	13
Illinois Central	49	3	548	27	227	95	2
Freept Div., I. C.	5	29	359	9	13	1	22
Gal. Div., C. & N. W.	60	19	638	1	65	14	1
Wis. Div. C. & N. W.	4	11	131	1	7	1	1
Wabash	35	7	192	6	63	80	2
C. & E. I.	9	25	251	13	68	105	2
C. M. & St. P.	153	25	127	3	86	10	4
Wis. Central	27	1	233	5	29	22	2
Chi. & Great West	22	1	152	1	47	12	2
A. T. & S. Fe.	77	50	628	8	1	2	1
E. J. & E.	5	6	114	5	95	3	1
Through and special	1	1	4	1,445	1,451	175	5
Total ea. grade	653	165	6962	68	1044	433	5
Total oats	653	165	6962	68	1044	433	5
Total rye	653	165	6962				

CROP REPORTS

[Readers will confer a favor by sending us reports each month of the acreage and condition of growing crops, the amount of grain and hay in farmers' hands and stocks in store, for publication in this department.]

WESTERN KANSAS.—Reports from Western Kansas are to the effect that a larger acreage has been sown this year than ever before, and that the demand for drills was greatly in excess of the supply.

GOVERNMENT REPORT ON WHEAT, Washington, December 13.—The Agricultural Department to-day issued the following: "The special wheat investigation instituted by the Department of Agriculture indicates a crop of 530,000,000 bushels. These figures are subject to slight modification in the final report."

TENNESSEE, Jackson, November 22.—Farmers of Western Tennessee are planting more wheat this season than was ever known any previous year in the history of the country. The present low price of cotton is causing this. The farmers declare that the present price of cotton does not cover the cost of producing it, and they have determined to resort to other methods of farming.

OREGON.—The wheat crop of 1898 promises to be the greatest ever known in the history of Oregon. The high price realized for this year's crop with the almost certain prospect of good prices for their next crop has stimulated the farmers to sow an unusually large area to fall wheat, and should the prospects continue good for high prices every available acre of land will be sown to spring wheat. With this object in view many farmers are now laying aside a supply of spring wheat for seed while it can be had and will not be caught like many were last spring with vacant land and no seed to be had at any price.—Enterprise, Oregon City, Ore.

ONTARIO.—The final crop report for 1897 has been published by the provincial Department of Agriculture for Ontario. The yield of wheat has been large, and much of it is of first quality. But a portion of the crop is not up to the standard in either weight or quality, as some of the grain "sprouted" during the wet weather. A large area of fall wheat has been sown, but owing to the dry condition of the soil, much of the seeding was done later than usual. The area and yield per acre of crops is as follows: Fall wheat 23,988,051 bushels, yield 25.2; spring wheat 4,868,101 bushels, yield 15.1; barley 12,021,779 bushels, yield 26.6; oats 86,318,128 bushels, yield 35.3; rye 3,382,005 bushels, yield 18; peas 13,867,093 bushels, yield 15.5; buckwheat 3,464,186 bushels, yield 22.8; beans 981,340 bushels, yield 19.4; corn 24,663,398 bushels, yield 73.6.

GOVERNMENT REPORT ON PRICES.—United States Department of Agriculture, Division of Statistics, Washington, D. C., Dec. 10, 1897.—The department's final estimates of the production of the principal crops are based largely on the December returns, and in accordance with the department's practice they will not be made public before the end of the month at the earliest. The only information now available relates to the average farm price of certain products on the first day of the present month. The farm price of corn, as indicated, averages 26.5 cents per bushel, against 21.5 cents last year; that of oats 21.5 cents, against 18.7 cents last year; that of barley 37.7 cents, against 32.3 cents last year; that of rye 44.7 cents, against 40.9 cents last year; that of buckwheat 42.1 cents, against 39.2 cents last year; that of hay \$6.65 per ton, against \$6.55 last year. The averages for the products not given are withheld for revision, as are also the estimates of the acreage of winter wheat and rye, and the condition of these products. JOHN HYDE, Statistician.

MICHIGAN.—Michigan Department of State, Lansing, Dec. 7, 1897.—The average condition of WHEAT in the state, December 1, was 88 per cent. of condition in average years. The figures for the southern counties are 84, central 91, and northern 101. The average condition in the state is 3, in the southern counties 5, and in the central counties 2 per cent. lower than on Dec. 1, 1896. These figures represent as accurately as it is possible for figures to represent the judgment of correspondents as to the condition of the growing wheat crop. From the statements of correspondents in the southern counties, it is clear that the fields in that section are unusually spotted, the plant has made small growth, and does not cover the ground as in average years. Wheat sowed early on thoroughly well cultivated ground is in nearly full average condition. This is particularly true of level fields, or those moderately so. But a large percentage of Michigan wheat was sowed late on ground that it was impossible to properly fit, owing to its extremely dry condition. No small amount of seed lay in the ground a long time before germinating, and some of it has never germinated. The warm, wet weather that prevailed the early part of November was exceptionally favorable, and of marked benefit, but it was then

too late for wheat to make its usual fall growth. The total number of bushels of wheat reported marketed by farmers since the November report was published is 2,064,321, and in the four months, August, September, October and November, 7,662,316. This is 2,966,642 bushels more than reported marketed in the same months last year. WASHINGTON GARDNER, Secretary of State.

KENTUCKY.—For this month 136 correspondents reported from 95 counties the condition of crops and live stock Dec. 1, 1897. WHEAT.—The month of November has been unusually favorable to the growth of the wheat crop, and as a result a considerable portion has reached what is considered an advanced stage, considering the very late start it made. The general tenor of remarks of correspondents is that the crop promises well, and a few consider the outlook very fine. Of course, much will depend upon what is met with during the winter in the way of sudden and hard freezes when unprotected by snow. Should the crop be visited with the average amount of hardship during the winter the result may be disastrous. Considerable wheat was sown during November, the acreage, compared with 1896, having increased from 90 per cent. on November 1 to 103 on December 1. The returns from assessors' reports show the acreage for 1896 as 611,629 acres; the estimated acreage for 1897 would, therefore, be 627,978. CORN.—Corn is reported cribbed without damage since maturity. Many correspondents report the crop light and chaffy, and not yielding as well as indicated earlier. As to quality 24 correspondents report it good, 71 average, and 36 bad. The yield for the state averages 24.55 bushels per acre. In 1896 the average yield was 27 bushels. The acreage by the returns of the county assessors is 2,220,368 acres. Taking now the estimated average yield of 24.55 bushels per acre, gives a total of 54,509,038 bushels. HEMP.—The number of correspondents reporting hemp appears to gradually decrease. The estimated yield per acre is 839 pounds. In 1896 the average was 1,045 pounds. On quality 7 report it good, 2 an average, and 1 bad. The publication of the monthly crop reports will close with this issue until the opening of the growing season next spring. LUCAS MOORE, Commissioner of Agriculture.

ILLINOIS, Springfield, December 13.—Over 500 correspondents of the State Board of Agriculture have reported to the department under date of December 1. Their reports have been tabulated, with the following results as to winter grains and corn: ACREAGE—Owing to the continued drought in the late summer and early fall, the ground at seeding time was in very poor condition for planting wheat, and many farmers were discouraged from putting in the usual area. In some instances seed was planted in the dust, and elsewhere the ground was so hard that it was difficult to pulverize it. Under such circumstances it is not surprising that one of the smallest wheat areas ever recorded in the state is reported this season, it being estimated that but 1,483,000 acres were seeded. In Northern Illinois the comparative deficiency is greatest, being 41 per cent. less than the 1897 area, making the 1898 area 19,700 acres. In the central division, but 72 per cent. of the 1897 area was seeded, giving 709,700 acres for 1898. In Southern Illinois, where wheat is the great staple, a deficiency of but 15 per cent. as compared with 1897 is reported, making the 1898 area 753,900 acres. The total area seeded this fall, according to these figures, is 1,483,000 acres, a deficiency of 414,000 acres, or 12 per cent. as compared with last year. Much of the wheat seeded lay in the ground from four to eight weeks before germinating, but the early November rains supplied the necessary moisture and caused the grain to sprout. The growth is very uneven, and the fields look decidedly "patchy" and unpromising, and it is exceedingly difficult to form anything like a just estimate of next season's crop. But remembering that it has frequently happened that when the outlook for wheat early in the season was unusually discouraging the crop has matured nearly up to the average, the wheat growers of the state should not be too despondent. Condition—According to reports received, the December 1 condition of the crop was 64 per cent. of an average crop in Northern Illinois, 45 per cent. in Central Illinois, and 71 per cent. in the southern division of the state. RYE—The conditions affecting rye are so nearly the same as wheat that what has been said of wheat may be regarded as true of rye also. But a small amount of rye is raised in this state, only 126,400 acres having been reported in 1897, and of this 70 per cent. or 89,500 acres, was raised in Northern Illinois, Central Illinois reporting 30,300 acres, and Southern Illinois 64,500 acres. In the northern division of the state the 1898 area is 25 per cent. less than that of 1897, 67,600 acres being reported; in the central division a deficiency of 39 per cent. giving the 1898 area as 18,500 acres, while in the southern division of the state but 4,500 acres are reported, a deficiency of 30 per cent. as compared with last year. The total area of rye seeded this season amounts to 90,600 acres. This grain, being a little harder than wheat, is not so easily affected by adverse circumstances, and its December 1 condition is a little better than that of wheat, being 68 per cent. of a seasonable

average in Northern Illinois, 51 per cent. in the central, and 76 per cent. in the southern division. CORN—The area devoted to corn in Illinois this year—7,051,500 acres—was the largest since 1886. The northern division of the state reported the largest area—3,191,687 acres—Central Illinois following with 2,831,000 acres, and the southern division with 1,028,800 acres. While the average yield per acre of 34 bushels is not quite so large as for the two preceding years, it is above the average. In Northern Illinois the average yield was 35 bushels, and in Central Illinois 36 bushels, but only 26 bushels per acre were produced in the southern division. The total yield was 239,360,000 bushels, of which 111,001,000 bushels were produced in the northern grand division, 101,402,900 bushels in the central, and 26,956,400 bushels in the southern division. In a few counties in the state the chinch bugs did some injury to corn, and as a consequence it is rather light and chaffy and loose on the cob in those sections, but taking the whole state into consideration this damage was slight, and the quality of the crop is excellent, being 99 per cent. of an average in Northern Illinois, 91 per cent. in Central Illinois, and 90 per cent. in the southern division. The season was very favorable for gathering and husking the crop, and the greater portion of it was harvested in good condition. PRICES—Rather better prices for farm products have prevailed of late, and corn shows an increased value of 4 cents per bushel over this date last year, the ruling price December 1 being 21 cents per bushel.

OHIO.—The official report of the Ohio State Board of Agriculture on the acreage and product of corn and the condition of other crops Dec. 1, 1897, contains the following estimates of condition or prospect of crops, as reported to the Department by its regular corps of township correspondents, reports being received December 1 and covering every county, and nearly every township of the state: WHEAT.—Condition compared with an average, 63 per cent.; crop of 1897 sold since thrashing, 45 per cent.; damage to growing crop by Hessian fly, 2 per cent. CORN.—Estimated area for 1897, 2,750,039 acres; average yield per acre, 33.67 bushels; total estimated product for 1897, 92,608,123 bushels; cut up for fodder, 84 per cent.; put into silo, 7 per cent.; average date of cutting for fodder, September 19; average date of cribbing, October 19. CLOVER SEED.—Probable total yield compared with average, 111 per cent. On November 1 the severe drought that had prevailed for many weeks was broken, and during the early part of the month the weather conditions were favorable to the germination and growth of wheat, and the result is an estimated improvement of 12 points as compared with the estimate made on November 1 for the month of October. While some improvement is shown, the condition of wheat at this time is still 37 points below a fair average condition, and will not go into winter in a sufficiently vigorous condition to withstand freezing and thawing. A favorable winter, with considerable snow protection, is required to protect and advance the plant toward anything like a fair average prospect. This is the first report of the year estimating the corn crop in bushels. While many counties show a fair average production, there are also many that show from a poor to a medium product. This uneven distribution of the crop is in a great measure due to the season. The crop was late in being planted, and the condition of the soil during the planting season was not good, and considerable had to be replanted. Taking the state as a whole, there is, however, a fairly good crop of corn, compared with a series of years. It is estimated to be about 27,000,000 bushels short of the crop of 1896, but that crop was an extraordinarily large one; it is only about 4,000,000 less than the crop of 1895. The production of corn the present year exceeds the average product for a number of years previous to 1895. As to quality, it is not all prime, considerable is rated as unmerchantable. The estimated yield of clover seed and of potatoes is practically the same as reported last month, potatoes being only about a half crop, and clover seed an unusually large yield.

KANSAS.—The Kansas Board of Agriculture issued a final bulletin November 24, showing the state's crop yields and farm values and the numbers and farm values of live stock for the year 1897. The total yield of WINTER WHEAT is 50,040,374 bushels, worth \$33,798,612, or almost 160 per cent. more than last year's crop. Its average yield per acre for the entire state is 15.07 bushels. The CORN crop is 152,140,993 bushels, or 69,276,421 bushels less than in 1896, and its value \$28,555,293, or \$7,077,720 less. Of OATS the yield is 23,431,273 bushels, an increase of 4,116,501 bushels. The value of the crop is \$3,828,192; the increased value, \$1,121,540; the yield per acre, 23.82 bushels. SPRING WHEAT shows a yield of 986,230 bushels, as against 601,523 bushels in 1896. Its value is \$386,691. The combined home value of winter and spring wheat, corn and oats is \$66,766,788. Of the same crops in 1896 it was \$13,071,930 less. The figures given out are a result of probably the most searching inquiry the Kansas or any other like board has ever undertaken for learning beyond question in careful detail the extent and

value of the state's productions. It is not supposed that any such figures will ever be made so as to escape criticism by wiseacres, but those sent out from Kansas are regarded as not only the nearest authentic of any issuing from any state, but incomparably superior to those compiled at Washington. In this particular line of work, from the time of its beginning, by Alfred Gray, Kansas has stood at the fore, and those having it in charge now mean that it shall improve rather than deteriorate. THE GROWING WINTER WHEAT.—The probable acreage of winter wheat sown the present autumn is about 3,845,000 acres, or an increase over the previous year of 16 per cent. An increase is reported from every county. In spite of an unusually dry fall in much of the state a large proportion of the wheat, even in those parts, has germinated, is growing, and promises well. The price of wheat for the year averages for the state 75 cents per bushel. CORN.—The prices at which the corn crop is being contracted to feeders and others in the cattle-fattening and corn-raising counties averages 22 cents; 53 per cent. of the crop is likely to be sold at these prices before January. An estimate of the cattle to be grain-fattened shows practically the same as one year ago, with big increases in the heavy-yielding corn counties. The yields and values of the year's crops and products are as follows: Winter and Spring Wheat, 51,026,604 bushels; value, \$34,385,304. Corn, 152,140,993 bushels; value, \$28,555,293. Oats, 23,431,273 bushels; value, \$3,828,192. Rye, 1,661,662 bushels; value, \$559,821. Barley, 1,772,426 bushels; value, \$362,753. Buckwheat, 14,313 bushels; value, \$7,872. Flax, 1,198,882 bushels; value, \$959,105. Broom corn, 46,997 pounds; value, \$402,669. Millet and Hungarian, 709,546 tons; value, \$1,973,226. The net increase in value of this year's agricultural productions over that of 1896 is \$20,045,246, and of live stock \$20,508,985; a total net increase of \$40,554,231, or somewhat more than 21 per cent.

WATERWAYS

The Erie Canal was closed for the season December 1.

Several cargoes of wheat shipped to Chicago from Duluth have recently been reshipped to Buffalo without unloading.

There are some whaleback barges at Cleveland, Ohio, holding grain cargoes for the winter. They are said to make good warehouses.

According to the Duluth Herald grain cargoes from that city to Chicago were reported short, much to the discouragement of the vesselmen.

A steel barge line from St. Louis to New Orleans is now assured, and a lower rate on export grain is expected as soon as the boats are running.

The Leyland Steamship line has recently contracted to carry 1,500,000 bushels of grain from Boston to Liverpool at seven cents a bushel.

The Crescent City loaded 201,000 bushels of flaxseed at Duluth for Buffalo, November 19 and 20. This is the largest cargo of flaxseed ever carried on the great lakes.

A new port on the Gulf of Mexico will be formally opened Christmas Day, when the first of a line of steamships will leave Port Arthur with a cargo of grain and meat for Europe.

When the alterations to the American lock at the Sault Ste. Marie Canal are completed and the present miter sill removed the depth of water will be increased to twenty-three feet.

Twelve years ago it was considered a good boat which would carry from 16,000 to 20,000 bushels of grain. Now a boat is considered no good unless it carries from 150,000 to 200,000 bushels. Is it any wonder the owners of small boats are discouraged?

During November 65 steamers and 6 sailing vessels cleared from the port of Baltimore, and the grain exports included 2,244,578 bushels of corn, 394,484 bushels of rye, 1,356,285 bushels of wheat, 801,690 bushels of oats, and 14,020 bushels of barley.

George W. McNear of San Francisco has bought wharves and warehouses at Portland, Ore., and hereafter will export grain direct from that port. The shipping of grain grown in Washington and Oregon by rail to San Francisco for export will soon be a thing of the past. Portland, Seattle and Tacoma are enjoying a good export trade in grain and providing additional facilities to meet the needs of the trade.

The Buffalo correspondent of The Marine Record writing of the Erie Canal says: "The canal season has virtually closed, and the best that can be said for it is that it has not been the worst season on record. That preëminence still belongs to 1895. The wheat shipments during the past season reached 25,964,172 bushels. This is a decrease of 11,000,000 bushels, compared with last year. The average rate of freight on wheat was 2.8 cents, compared with

3.7 cents last year, and 2.2 cents in 1895. The rate on grain this year is the lowest with one exception on record." The railroads have carried 148,000,000 bushels for the first eleven months this year as against 108,000,000 bushels for the same period of 1896.

During October the eastbound freight through the United States Canal at Sault Ste. Marie included 8,015,790 bushels of wheat, and 1,692,062 bushels of other grain, and the eastbound freight through the Canadian Canal included 2,393,863 bushels of wheat, and 105,690 bushels of other grain.

There are now nearly 700 vessels engaged for a part of the season in carrying wheat on the great lakes. This is more than are employed in moving the export crop across the Atlantic, and the largest lake vessels are considerably larger than the ordinary ocean craft engaged in the same line of work.

Chicago's campaign toward securing at the hands of the national government the deepening and widening of the channel of the Chicago River has assumed a definite form. Every congressman from the county of Cook has pledged himself to battle for a government appropriation and a resurvey of the waterway on a basis of a depth of 21 feet.

The report of the commerce passing the "Soo" Canal for November shows an increase in cargo carried, in comparison with the same month of 1896, of 598,158 tons. The largest items of traffic were grain, iron ore and flour. Of wheat, 8,563,839 bushels were carried through; grain other than wheat, 3,237,186 bushels; flour, 1,421,496 barrels.

The Canadian Forwarding and Export Company has carried 5,618,000 bushels of grain during the present season of navigation from Ogdensburg, Kingston and Prescott to Montreal in pinflats, without the loss of a single bushel. These pinflats were the barges that our insurance companies refused to have anything to do with, and consequently an American company took the insurance on them and made a clean thing of it, all the insurance being clear profit.—Trade Bulletin, Montreal.

A number of politicians and railroad men, who have not a thought for the welfare of the Illinois and Michigan Canal, have petitioned the State Canal Commissioners to grant them a right of way for an electric railroad from La Salle to Joliet along the canal. This is similar to the trick of a Pennsylvania railroad company, which now has its roadbed where the canal used to be. If the electric railway promoters want a right of way they should be willing to pay for it, regardless of who grants it.

The report of the Canadian commissioners appointed to act jointly with the United States Commissioners, to inquire into the feasibility of an international deep waterway between the great lakes and the Atlantic Ocean, has been printed, and is ready for distribution. It is a blue book of some 70 pages, and deals at length with the whole subject. It favors a route by the St. Lawrence River to Lake Champlain and the Hudson River. This is the least expensive and most practical route yet suggested.

The St. Lawrence River route seems to be growing in favor with grain exporters, as the season just closed has been the best that Montreal has had. The total quantity of wheat, corn, peas, oats, barley and rye shipped in 1895 was, roundly, 7,000,000 bushels; in 1896 it jumped to 19,000,000, and this year there has been another bound to 27,000,000 bushels. Of this 8,000,000 of increase, more, by the way, than the total export of 1895, wheat claims 2,847,340 bushels, corn 2,605,526 bushels, and oats 2,386,370 bushels.

This Canadian wheat, which goes to Buffalo because the Buffalo route is the cheapest, is handled in a peculiar way. It is bonded immediately on arrival, and a United States customs inspector must be present when the seals on the hatches are broken. It remains in his charge in the elevator until loaded into cars or canal boats, and is properly sealed up with government seals. The extra expense of the inspectors' salaries is assumed by the Buffalo elevator men, who found several years ago that this business was worth encouraging, and decided to make it as easy as possible for Canadian wheat to take this route. From the opening of navigation to November 1 nearly 6,000,000 bushels of Canadian wheat was received at Buffalo.

The report of Hon. E. T. Chamberlain, Commissioner of Navigation, as given out at the Treasury Department recently, after pointing out the nature of our expenditures for maritime purposes, amounting annually to about \$80,000,000, dwells upon the different modes of raising money to meet these expenditures in the United States and Great Britain. It shows that three-fourths of the tonnage in foreign trade entering and clearing at ports of the United Kingdom is British shipping, yet vessels are taxed to maintain the lighthouse service and for other maritime purposes of that country. Though three-fourths of the tonnage in foreign trade entering and clearing at ports of the United States is foreign, foreign shipping contributes only about \$650,000 to

our expenditures of \$80,000,000. The United States is more liberal in its charges toward British, German and French shipping than are those countries respectively to their own shipping.

Erastus Wiman, president of the Consolidated Lake & Canal Transportation Co., is in England for the purpose of raising \$1,000,000 or so to build boats and other necessary property. This company was incorporated in New Jersey some time ago, with a capital of \$400,000, for the purpose of putting a fleet of steel boats on the lakes and canals, with facilities for giving a through bill of lading from the West to the port of New York. If Mr. Wiman succeeds in raising the money, a revolution in the Erie canal business may begin before the close of next season.

The Illinois and Michigan Canal has just closed a prosperous season, and actually paid expenses. The grain trade has been fine, and next year the prospects for both grain and stone are exceedingly encouraging. Over 2,000,000 bushels of corn alone have been carried this fall, which exceeds anything of the kind for the past ten years. The elevator men along the canal and the boatmen have done well. The boats have been running day and night. Next year, a number of new boats will be seen on the canal. Some are going down to get boats from the Erie Canal and bring them round, and others will build new boats. A number of improvements have been made, and others commenced.

The Association for the Improvement of Western Waterways held a meeting at Davenport, Iowa, during the first part of October. Resolutions were adopted favoring the construction of a dam over the Rock Island rapids in order to improve navigation over the rapids. Other resolutions urged the early completion of the Hennepin Canal; liberal appropriations for the improvement of the Mississippi and Ohio rivers; the deepening and widening of South Pass; the ample prosecution of work to insure the alluvial valley, of the lower Mississippi against floods; the early completion of the levees between Burlington, Iowa, and Hannibal, Mo.; the deepening of the harbor at Davenport.

Buffalo elevator men seem to have lost all reason in their contemplation of a 50 per cent. increase in the grain they will get a chance to levy upon next season. One says: "The greatly increased capacity of the Buffalo elevators, a net increase this year after making allowance for the burning of the Sturges of over 5,000,000 bushels; the fact that the Eastern and foreign demand is almost certain to be as large as this year and probably will be larger if there should be any material reduction in prices; the reduced cost of carrying, and the rapid growth of the lake fleet should tend to bring to Buffalo the largest part of the business that this year has gone by other routes to Southern ports." The canal boatmen are abused for not carrying more grain, but not a word is said about reducing the charge on grain transferred from lake vessels to canal boats.

The hoodwinking of the taxpayers of the great Empire State by a handful of elevator men is truly pitiful. Even the newspapers of Buffalo are deceived and induced (against the interests of their own city) to falsely charge the canal boatmen. The Commercial says: "The cost of carrying freight on the New York Central Road is said to be five mills per ton per mile. It has been demonstrated that with anything like an organized system of management grain can be carried at a profit on the Erie Canal for one mill per ton per mile. But no system of organized management of canal traffic exists. The boatmen fear 'organization,' and while clinging to the methods of 50 years ago their business fades away. If the state spends millions in putting the canal in shape to do more business the canal interests ought to wake up and do their part toward enabling the state to get, indirectly, some decent return for its investment." The trouble is due to much organization on the part of the rail carriers and the elevator men. The trade is mulcted for seven-eighths of a cent a bushel for transferring, but when the grain is shipped by rail from Buffalo the carrier absorbs it, or rather it is not paid. A state law requiring those who conduct an elevator business for compensation to transfer grain for one-quarter of a cent a bushel, and to give two days' storage free would relieve the trade of a great burden, and attract much grain which now goes abroad via other routes.

The present grain season, now practically closed, has been one of the most active in the history of the port of Buffalo. Receipts of grain by lake have been the largest on record, reaching the aggregate total of 183,000,000 bushels, comparing with 154,000,000 bushels in 1896, and 105,500,000 bushels in 1895. Flour receipts aggregated 11,242,113 barrels, about 1,500,000 barrels more than in 1894, when the previous high record was made. The grain receipts for the season include 52,000,000 bushels of wheat, 54,000,000 bushels of corn, 58,000,000 bushels of oats, 12,275,000 bushels of barley, and about 7,000,000 bushels of rye.

ELEVATOR & GRAIN NEWS

An elevator is being built at Pierson, Ill.

C. H. Rumley is building an elevator at Buckley, Ill.

H. T. Shnell has built a grain warehouse at Findlay, Ohio.

A grain elevator has been built at Lodi Station, N. Y.

C. L. Rothell is buying grain at Crab Orchard, Nebr.

H. S. Dowd of Quyon, Quebec, has built a grain elevator.

Van Grundy Bros. are building an elevator at Macon, Ill.

C. L. Wing is building a 12,000-bushel elevator at Maquon, Ill.

Frease & Son have put up a grain warehouse at Kremlin, Okla.

The Kershaw Grain Co. has been incorporated at Walla Walla, Wash.

H. P. Hood & Sons have enlarged their grain elevator at Derry, N. H.

R. F. Cummings is building an addition to his elevator at Clifton, Ill.

The McIntyre & Baker Grain Co. is now buying grain at Croswell, Mich.

J. G. Stevenson of Silverwood, Mich., has added a feed mill to his elevator.

Boyleston, Ind., has a new elevator built by Campbell, Thomas & Co.

It is reported that the Luce Elevator at Dewar, Iowa, is to be remodeled.

Michael Weidner is building an addition to his elevator at Claytonville, Ill.

The Duff Grain Co. of Nebraska City has enlarged its cribs at Louisville, Nebr.

The new Kirkpatrick Elevator at Lone Tree, Iowa, will soon be in running order.

The Turner-Hudson Co. has steel tanks well under way at Havana and Pekin, Ill.

Alexander & Moss are selling out their grain and bag business at Dallas, Texas.

The Middle Division Elevator at Cropsey, Ill., is undergoing extensive repairs.

The grain firm of Bickelhanpt & Marling, Aberdeen, S. Dak., has been dissolved.

Benson Bros. have secured a site and will erect a modern elevator at Anchor, Ill.

C. S. Hunt has purchased the grain business of S. A. Oliver at Rapid City, S. Dak.

M. H. Gollon has put in a grain dump at Tremont, Ill., and is buying grain there now.

The Schutz Elevator at Pekin, Ill., was recently sold by order of court to I. N. Cox.

It is reported that W. S. Nevins and others intend to build an oil mill at Denison, Texas.

Sylvester Taylor and son of Shadeland, Ind., are building an elevator at Montmorenci.

H. M. Hansen of Wilber, Wash., is operating a branch grain house at Govan Station.

W. C. Richardson has purchased Samuel Flickinger & Co.'s elevator at Elwell, Iowa.

Sims & Houghton are now doing business in their new elevator at Portsmouth, Iowa.

The Mooers Company's new elevator at Kingston, N. Y., was recently opened for business.

The machinery in J. B. Drake's new elevator at Kappa, Ill., was started on December 1.

An 80-ton oil mill will be erected at Meridian, Miss., by the Meridian Fertilizer Factory.

Burke & Spear are operating the elevator at Morris, Ill., recently occupied by A. J. Nickey.

Whipple & Barr are building an additional elevator at Caton Farm, near Plainfield, Ill.

It is reported that John C. Wilson will build an elevator in the spring at Russellville, Ind.

Lypard & Miller have sold their grain elevator at Neponset, Ill., to Everett Davis of Elmwood.

Repairs have recently been made on the Mt. Pulaski Grain Co.'s elevator at Chestnut, Ill.

R. G. Tonkin and Henry Nickles have formed a partnership for buying grain at Hope, Kans.

J. V. Jamison has removed from Luray, Va., to Hagerstown, Md., where he will engage in the grain

business. He is fitting up the old Western Maryland freight house for that purpose.

The Bonham Mercantile Co. has succeeded D. A. Biard in the grain business at Bonham, Texas.

D. M. Keyes and Syd James have entered into partnership and are buying grain at Pana, Ill.

Buell & Morse of Livermore, Iowa, have purchased and will operate the elevator at Burdette.

Geo. Myers has purchased the elevator at Linnsburg, Ind. A large corn sheller has been put in.

Samuel Mangas has enlarged his elevator at Hartsburg, Ill., and added some new machinery.

L. Knebel has built an addition to his elevator at Pierson, Ill., and has put in a mill to grind feed.

Jerry Bunn has purchased the Benson Elevator at Colfax, Ill., and will take possession January 1.

The old box mill at Hopkinton, Mass., is being remodeled to a grain elevator by S. A. Eastman.

Carrington, Hannah & Co.'s new elevator at Manteno, Ill., was opened for business last month.

W. D. Early, operating a grain elevator at Lumberton, Ohio, is said to have made an assignment.

The elevator at Summit, Ind., has been overhauled and a dump and some new machinery added.

The Maple Leaf Elevator at Kansas City, Mo., is being improved to increase its handling capacity.

C. E. Stitts of New Windsor, Ill., is reported as contemplating the erection of an elevator at Viola, Ill.

The Hathaway-Keath Grain Co. is now occupying new and enlarged office rooms at its plant at Mexico, Mo.

It is rumored that the Canadian Pacific Ry. will add to its elevator capacity at St. John, N. B., next spring.

The Farmers' Coöperative Grain Association of Sheldon, Ill., has certified to a dissolution of organization.

Frank Miller of Vassar, Mich., has sold his elevator at Caro, Mich., to Chas. Montagne and J. H. Harris.

The Kansas City Milling Co., Kansas City, Mo., is increasing the capacity of its elevator to 100,000 bushels.

J. B. Ramsey of Sebree, Ky., has recently put in a Barnard & Leas Combined Corn Sheller and Cleaner.

The firm of Harris & Co. at Omaha, Nebr., has changed the style of its name to the Central Granaries Co.

William Yerion of Kappa, Ill., has removed to Talbot, Ind., where he will engage in the grain business.

The Kansas City & Omaha R. R. are to build an elevator at Clay Center, Nebr., making the third at that point.

L. A. Vasey has erected an elevator at Empire station, on the Big Four Railroad, four miles east of Leroy, Ill.

Frank Halby of Ney, Ill., has purchased the elevator at Marengo, and will engage in the grain business there.

John Rayl is arranging to build an elevator at Marion, Ohio, to take the place of the one burned on October 29.

The New Athens Elevator Association of New Athens, Ill., has certified to a dissolution of the corporation.

The Crescent Grain Co. is remodeling its elevator at Covel, Ill., and increasing its capacity by adding to its height.

Herman E. Jeffts has been succeeded in the grain business at Ashburnham, Mass., by C. H. Gates and Chas. Seaver.

A. J. Leslie of Meredosia, Ill., has purchased from the Barnard & Leas Mfg. Co. a No. 0 Cornwall Corn Cleaner.

N. W. Holland has purchased the grain business of Perry & Porter and F. A. Spaulding & Co. at Walpole, N. H.

It is said that the Manitoba Elevator Co. contemplates erecting a grain warehouse at Calgary, Alberta, N. W. T.

The Monte Vista Mill & Elevator Co., Monte Vista, Colo., has a 40,000-bushel elevator now well along toward completion.

The H. G. Lacey Co. has been incorporated to deal in grain, manufacture flour, etc., at Hanford, Kings Co., Cal. Capital stock, \$175,000; actually subscribed to, \$100,000. The directors are Horatio

G. Lacey, Orra M. Lacey, Richard C. Lacey, Emma H. Lacey, all of Hanford, and Lorenzo M. Lacey of Reedley.

Phillip Rahm of New Orleans, La., has purchased from the Barnard & Leas Mfg. Co. a No. 35 Barnard's Separator.

J. M. Head is building a mill and elevator at Rogana, Tenn., six and one-half miles from Gallatin, on the C. & N. R. R.

Albert Behrends and others have incorporated the Behrends Seed Co. at Galveston, Texas, with a capital stock of \$5,000.

Gilmore & Elliott have completed an elevator at Superior, Nebr., making the sixth concern now buying corn at that place.

Pradger & Sheldon are now buying grain at the elevator at Alexandria, Minn., formerly operated by the M. & N. Elevator Co.

The grain firm of Thompson & Sleeper of Waxahachie, Texas, has opened a branch at Ennis, Texas, in charge of E. C. Paxton.

A correspondent of the Wooster (Ohio) Republican says the Akron Labor Exchange will build an elevator this fall at Kidron, Ohio.

The British Elevator at Weldon, Ill., has been purchased by the Middle Division Elevator Co. Ira L. Nixon is the buyer in charge.

M. L. Marshall has recently completed a 10,000-bushel elevator at Asherville, Kans., on the Solomon branch of the Union Pacific Ry.

The Minneapolis agency of the Nordyke & Marmon Co. was a recent purchaser of a Barnard & Leas Little Victor Corn Cleaner.

The report is current that the management of the Great Northern Elevator at Buffalo, N. Y., will build a big elevator at New York.

The Moore Grain and Elevator Company of Kansas City, Mo., is putting up a 160,000-bushel addition to its elevator, the Missouri.

The Omaha branch house of Fairbanks, Morse & Co. recently ordered a No. 2 Victor Corn Sheller from the Barnard & Leas Mfg. Co.

South Edmonton, Alberta, the most western grain market in the Northwest Territories, has five elevators and three grain warehouses.

J. O. Finch and John Clouser of Darlington, Ind., have purchased the elevator at Jamestown, and will make extensive improvements.

Houck & Nells of Pewamo, Mich., have rented the Carr & Granger Elevator at Mt. Pleasant, Mich., and will take possession February 1.

The Elliott Elevator Co., Elliott, Ill., has been incorporated by B. F. Holter, John Hatleberry and James Larson. Capital stock \$3,000.

C. B. Benedict's new elevator is about ready to open for business at Great Barrington, Mass. The machinery will be run by water power.

Geo. Knndson has made some improvements in his elevator at Brookings, S. Dak. A new 3-horse power Fairbanks Gasoline Engine was put in.

The Kirkpatrick Grain Co. expects to rebuild at once the elevator at Penfield, Ill., which was destroyed by fire two or three weeks ago.

Henry Keiser & Co. have supplied their elevator at Bloomington, Ill., with a Barnard & Leas Victor Corn Sheller and Corn Cleaner.

After being in the grain business for 29 years, S. L. Woodworth has disposed of his elevator at Arcola, Ill., to Hugh M. Bone of Decatur.

Conger & Beier have leased their elevator at Fletcher, Ill., to the Middle Division Elevator Co., and will buy for that company hereafter.

It is said that the Sturgis Elevator, owned by the Buffalo Elevating Co. at Buffalo, N. Y., which was burned in October, will be rebuilt at once.

Ely & Bissell are building an addition to their elevator at Antwerp, Ohio. They are also putting in a new power corn sheller and grain dump.

It is reported that a large grain elevator will soon be erected on the new wharf of Crane & Trenchard Bros., at Scott's Point, Chestertown, Md.

The Middle Division Elevator Co. has its 15,000-bushel elevator at Randolph, Ill., nearly completed. Mr. Tilbury of Towanda will act as agent.

The Laning & Harris Coal & Grain Co. of Kansas City, Mo., in addition to its extensive coal business will hereafter deal largely in grain and hay.

The D. Rothschild Grain Co. of Davenport, Iowa, has purchased from Barnard & Leas Mfg. Co. a No. 6S Cornwall Oat Clipper arranged for handling barley.

Geo. W. McNear of San Francisco, known as the wheat king of the Pacific Coast, has purchased the Irving dock at Portland, Ore., for \$25,000. The wharves and warehouses included in the transfer

extend for 300 feet along the east bank of the river. A large cleaning plant is being put in, which will be operated by electricity.

C. C. Leinweber of Waterville, Ohio, recently added to his elevator equipment a No. 1 Barnard & Leas Little Victor Corn Sheller and Cleaner.

David Stott, the miller of Detroit, Mich., has contracted for the erection of a large grain elevator at the corner of Dequindre and Division streets.

C. F. Moody's new elevator and flour and feed store is now open for business at Latonia, Minn. It is in charge of R. S. Sansburn of Menahga.

J. H. McRobert of Ellsworth, Minn., has placed in his elevator a No. 1 Little Victor Corn Sheller and Cleaner made by the Barnard & Leas Mfg. Co.

J. M. Owens has placed in his plant at Saratoga, Ind., a Victor Corn Sheller and Cornwall Corn Cleaner, made by the Barnard & Leas Mfg. Co.

J. M. Allan of Pymont, Ind., has placed in his elevator a No. 1 Little Victor Corn Sheller and Cleaner made by the Barnard & Leas Mfg. Co.

Mackensie & Winslow, dealers in grain at Fall River, Mass., for nearly 25 years, have erected and are now occupying a commodious brick building.

The Transmississippi Grain Company is building a large elevator at Dwight, in Butler County, Nebr., on the Superior branch of the F. E. & M. V. Ry.

The firm of H. W. Church & Co., which has been engaged in the grain business at Taunton, Mass., for 60 years, has been succeeded by Briggs & Co.

X. H. Hollar of McGuffy, Ohio, has built an addition to his elevator. The necessary machinery for the same was furnished by W. W. Stephens & Co.

The E. H. Pease Mfg. Co. of Racine, Wis., was a recent purchaser of two Barnard & Leas No. 1 Victor Corn Shellers and one Cornwall Corn Cleaner.

The Riter-Conley Co. of Pittsburgh, Pa., is erecting for Clark & Allen a grain elevator and steel storage tanks at East Thirty-second Street, New York City.

Tromhauser Bros. have the 500,000-bushel addition to the Cargill Elevator at Green Bay, Wis., so near completion that it is now ready to receive grain.

Chas. E. Hoke of Chambersburg has taken charge of the elevator at New Franklin, Pa., which he and his brother, John W. Hoke, purchased on December 1.

Thos. A. Shaw, who has conducted a grain, flour and feed business at Hartford, Conn., since 1864, has retired, and sold his business to C. A. & W. C. Pease.

It is said that a new elevator will be built at Midletown, Ill., on the line of the new railroad from Peoria to Springfield, as soon as the road is completed.

Mike Ott purchased John A. Miller's elevator at Wilton, Iowa, and took possession December 1. Mr. Miller expects to engage in other business in Wilton.

The Barnett & Record Co. of Minneapolis, Minn., has been awarded the contract for building the Duluth, Mesaba & Northern Ry. Co.'s ore dock at Duluth.

Geo. M. Ashmore is buying grain at Lovington, Ill., for B. S. Tyler & Co. of Decatur. A scale and dump has been put in near the Wabash depot for loading.

James Steadman of Woods Corners, Mich., is a recent purchaser of a No. 1 Little Victor Corn Sheller and Cleaner, made by the Barnard & Leas Mfg. Co.

Solomon & Stukey, Jerico Springs, Mo., have purchased from the Barnard & Leas Mfg. Co. a Little Victor Corn Sheller and Cleaner, and some elevating machinery.

The Gurnee Creamery Company of Gurnee, Ill., has lately put in a feed mill, corn sheller and other machinery. W. W. Stephens & Co. furnished the entire outfit.

The 600,000-bushel elevator at Venice, Ill., has been leased by John Thyson of St. Louis, Mo., who operated the elevator at Madison at the time it was destroyed by fire.

The Newton Milling & Elevator Co., Newton, Kans., is completing a 50,000-bushel elevator, thus increasing the storage capacity of its plant to about 200,000 bushels.

J. J. Daly of Wapella, Ill., has recently remodeled his elevator, putting in a new elevator leg and other repairs. The machinery was furnished by W. W. Stephens & Co.

On the third of this month several members of the grain trade of Montreal, Canada, met at the Board of Trade building and organized the Pneumatic Elevating Co. of Montreal, capital stock \$250,000. The following were chosen as members of a provisional

committee to obtain incorporation, etc.: Thos. Harling, W. M. Macpherson, Wm. Stewart, Alex. McFee and A. E. Cook as secretary pro tem.

The elevator at Idaho Falls, Idaho, was recently sold at sheriff's sale to C. E. Thum, to satisfy a claim of the receivers of the Bunting Bank amounting to \$7,816.20.

The glucose plant at Marshalltown, Iowa, is expected to close down for a time. Unsatisfactory freight rates and water supply are assigned as reasons for so doing.

According to a statement of the St. Joseph Gazette the United Elevator Co. of St. Louis contemplates building an elevator of large capacity at St. Joseph, Mo., in the near future.

The Farmers' Elevator Co. at Easton, Ill., inspected its new elevator on November 30 and accepted same from the contractors. It was opened for business December 1.

Fralich & Waltz of New Palestine, Ind., have added to their machinery a No. 1 Victor Corn Sheller and a No. 1 Cornwall Corn Cleaner, made by the Barnard & Leas Mfg. Co.

The Standard Cattle Co. of Ames, Nebr., has let a contract to Seeley, Son & Co. of Fremont for building an addition with capacity for 60,000 bushels of shelled corn to its elevator.

Frank E. Chandler of Boston has leased the elevator at Richford, Vt., and is putting in the roller system for grinding meal and feed, thus furnishing steady work to his employees.

Among the recent sales of the Barnard & Leas Mfg. Co. was a Victor Corn Sheller, Little Victor Corn Cleaner and Cornwall Corn Cleaner to W. W. Stephens & Co. of Chicago, Ill.

Capt. Robert Sudden recently completed a large galvanized iron warehouse on the wharf at Ventura, Cal. It is 50x150 feet, has a cement floor, and is capable of holding 60,000 bags of grain.

It is reported that negotiations are being carried on between the Citizens' Committee of Goderich, Ont., and the Grand Trunk Ry. with reference to the building of a large elevator at that port.

Whitecomb & Hall have placed in their elevator at Vicksburg, Mich., a No. 32 Special Barnard's Grain Separator, and some elevating machinery. It was supplied by the Barnard & Leas Mfg. Co.

The John Thyson Elevator & Grain Co. of St. Louis, Mo., has been incorporated with a capital stock of \$10,000 by John Thyson, C. H. Albers, W. H. Kiersey, Gilbert Sears and W. P. Hazard.

The Trans-Mississippi Grain Co. of Omaha, Nebr., is said to be planning to put up 25 elevators along the line of the C. & N. W. Ry. It is also said to be negotiating for one of the elevators at Carroll, Iowa.

Graves Bros. are erecting a brick grain warehouse 54x70 feet at the corner of Bridge and Market streets, Northampton, Mass. It will be equipped with an electric motor and modern elevator appliances.

The Beatrice Implement Co. of Beatrice, Nebr., recently ordered from the Barnard & Leas Mfg. Co. a Victor Corn Sheller, Cornwall Corn Cleaner, elevator heads, boots, and full line of material for drives, etc.

A company is being formed at Pleasant Plains, Ill., to build a \$3,000 elevator. Among the citizens interested in the enterprise are A. H. Atherton, Dr. C. W. Hickman, W. G. and S. S. Purvines, and T. C. Richardson.

It is reported that the elevator and warehouse of Robt. S. Kerr at Bellefontaine, Ohio, have been closed on a judgment taken on a \$900 note in favor of Geo. Shick. Mr. Kerr is the oldest grain dealer in that county.

M. Hennessy of Orient, Iowa, has recently put up a new elevator. The entire equipment of machinery, consisting of elevators, shafting, pulleys, cleaner and grinder, was furnished by W. W. Stephens & Co.

The Greenleaf-Baker Grain Co. has completed a corn crib at Howe, Nebr., which is 200x14 feet, and 12 feet high. The new crib was filled up rapidly, making 40,000 bushels of corn cribbed by this company at that station.

The Powell Elevator Company of Genoa, Ottawa County, Ohio, has been incorporated with \$50,000 capital stock. The incorporators are E. A. Powell, Howard B. Magruder, George W. McRitchie, S. T. Wood and W. Powers.

The contract for building a 700,000-bushel elevator in Chicago was let last month to J. L. Record of Minneapolis, by Armour & Co. of Chicago. It is generally referred to as the addition to their Minnesota Elevator on Goose Island, but the only connection between the two will be a bridge. It will be a

cribbed house with brick veneer, 317x97 feet on the ground, and 144 high. The cost is said to be \$140,000, and it is expected the elevator will be ready for use by January 5.

Porch & Adams, Cabery, Ill., are erecting a new elevator at that place. The power will be furnished by a gasoline engine. The machinery, including shafting, pulleys, belting and rope drives, was furnished by W. W. Stephens & Co.

The Henry A. Smith & Son Co. has been incorporated at Philadelphia, Pa., to do a general grain and coal business. The incorporators are Henry A. Smith, Henry A. Smith Jr., Aug. A. Bayle, Chas. V. Ferguson, and Michael J. Keating.

H. L. Marsh & Co., who recently succeeded H. W. Briggs & Co. in the grain business at Newport, R. I., have removed their headquarters from the old location to the elevator building on Marsh Street, where they will enjoy increased facilities.

A. P. Snyder of Stanford, Ill., has gone into business with Wm. O. Snyder at Potomac, Ill. They will operate the only elevator at that place. It has a capacity of 20,000 bushels, and adjacent cribs have room for 28,000 bushels of ear corn.

Jerome Davidson has sold his elevator and grain business at Mahomet, Ill., to C. H. & P. G. Jones of Champaign. The new proprietors will place a buyer in charge and operate the plant in connection with their present business at Champaign.

B. J. Hardy of Iowa City, Iowa, recently purchased from the Barnard & Leas Mfg. Co. some elevator machines and supplies consisting of one No. 2 Victor Corn Sheller, one No. 2 Cornwall Corn Cleaner, shafting, pulleys, belting, etc.

W. W. Stephens & Co. have recently furnished a complete outfit of machinery for the new elevator of the Vanier Grain Company at Du Bois, Nebr. The equipment consists of a corn sheller, cleaner, elevators, legs, shafting, pulleys and belting.

H. A. Binns of New Holland and Fred Obermiller of Mt. Pilaski have formed a partnership for the purpose of building an elevator at Middletown. They expect to be buying grain there before the new railroad is completed through that place.

Dennis Shanahan has removed his grain business from Franklin Street, Newport, R. I., to the elevator and warehouse on Commercial Wharf, until recently occupied by Briggs & Co. Considerable repairs were made to the machinery in fitting up the new quarters.

The officers of the Canadian Pacific Railway are said to be considering the erection of another elevator on Owen Sound in the spring. Their grain traffic there this season has been good. They will utilize two of their steamers for grain storage until the elevator there can be relieved.

A 5,000-bushel elevator has been completed at Bloomer, Wis., in connection with a new flouring mill. It is situated on Duncan Creek, which furnishes water power for operating the plant. The promoters of this enterprise are A. B. McDonnell and Judge R. D. Marshall of Chippewa Falls, Wis.

A newspaper correspondent claims that some western capitalists contemplate erecting a large grain elevator at Eastport, Me., next summer. Among the advantages mentioned as favorable to such a plan is that Eastport offers a splendid harbor the year around for large trans-Atlantic vessels.

On the site of its elevator which was burned last summer, causing the loss of four lives, the Davenport Syrup Refining Co. is building a 150,000-bushel storage plant. It is composed of a nest of round steel tanks from 50 to 60 feet high, and is as nearly fireproof as the entire absence of wood can make it.

The Northern Grain Co. opened two elevators in Manitowoc, Wis., in February last. Elevator A has a capacity of 600,000 bushels, and from March 1 to December 1 handled 4,021,577 bushels of grain. The smaller elevator is used for local buying, and has received 200,000 bushels since August 1. A 50-foot addition to this elevator is now being completed.

Jocknsch, Davison & Co. are building an elevator of 60,000 to 75,000 bushels' capacity at Galveston, Texas. It will cost from \$15,000 to \$20,000, and have a full line of cleaning machinery especially arranged for treating low-grade grain. In this respect it will fill a long felt want in the Galveston market. A small mill will also be operated in connection with the elevator.

The elevator capacity of the Texas Star Flour Mills at Galveston, Texas, owned by J. Reymershofer's Sons, has recently been increased to 650,000, and will soon be open for public business. They can now unload 100 cars of grain per day, and with the completion of the belt conveyors running down to the dock, can load a ship at the rate of 12,000 bushels per hour, thereby loading a large ocean freighter in one day. This conveyor is arranged to run along the dock so that two vessels can be loaded at the same time. It will also be unnece-

sary to change the berth of a vessel from the time loading is begun until it is finished. This firm also operates a rice mill and warehouse capable of storing 10,000 sacks of rough rice.

It is reported that an agreement has been reached between the citizens of Collingwood, Ont., and the Grand Trunk Ry. for the building of an elevator at that point. A private company will be organized to build the elevator and will receive a bonus of \$25,000 from Collingwood. The capacity of the elevator will be large, but doubtless considerably less than the 1,000,000 bushels first talked of.

The citizens of Janesville, Wis., gave W. W. Cargill & Co., La Crosse, Wis., the use of the Hodson Elevator for one year free of rent, and about \$300 in cash as an inducement for them to open a branch at that place. Cargill & Co. have placed P. A. McGuire in charge of the plant, and a good business is reported as being already established. A dump, scale, corn sheller and other machinery have been put in.

The Farmers' Elevator in this town seems to be giving the farmers of this vicinity a d-l of a pile of "business." Maybe it is the men who have had charge of the elevator. Anyhow the house has been leased to three different operators in the past three years, and things would run along nicely for a while and then the wheat in the elevator would get to moving around so it couldn't stay in the house and then the "operator" would get uneasy and he would get out, too.—*Ledger, Litchfield, Minn.*

W. N. Potter & Sons of Greenfield, Mass., who own five grain houses on the Fitchburg Railroad, have completed a 20,000-bushel elevator at North Adams. It is a very complete plant and arranged to do a large retail business. The loading can all be done under roof. An automatic weighing and bag-filling machine is used to good advantage in the retail department. It is hung from a track and can be readily moved about so as to draw grain from any bin in the house. The elevator machinery was furnished by Munson Bros.

The newspapers of Seattle, Wash., are vigorously setting forth the needs of that place for increased grain handling facilities. The Great Northern Ry. will bring ten times the amount of grain into Seattle this year than it did last. A blockade so far this year has only been averted by the use of the six enormous new warehouses along the line of the railway, and a large export movement right from the start. With but a single elevator at Seattle, and the increased wheat acreage in the territory for which it is a natural market, the claims of the papers of that city would seem to be well founded.

A petition was recently filed in the District Court at St. Paul, Minn., asking for the closing up and dissolution of the St. Paul Warehouse and Elevator Company. The company was formed Feb. 1, 1874, and continued business until Nov. 27, 1896. At that time the company's elevator on West Third street was burned. The capital was originally \$180,000, divided into 3,600 shares, each valued at \$50. At a meeting held October 5 last the company decided to close up its business. The petition is signed by a majority of the stockholders, who ask that the company be dissolved, and the property remaining after the debts are paid be divided among the stockholders. An order was issued by Judge Otis for the stockholders, creditors and others interested to appear in court January 8, and show cause why the petition should not be granted.

A movement is on foot which, if carried to completion, means the introduction of a new enterprise on the river front which will mean much to the grain interests of the city. It is reported, on good authority, that a well-known firm of architects has been given the contract to draw up plans and specifications for an immense grain elevator to be built on the river bank in the west end of town. This elevator is to have both river and rail connections. The purpose of the new company is to receive and ship grain for Southern export. Cincinnati is to be made the collecting center for grain for export. Arriving by rail, it will be stored in the new elevator on the river bank. Then, as occasion warrants, the grain will be transferred to large barges in the river and towed to New Orleans, from whence it will be exported to the best foreign markets.—*Commercial Tribune, Cincinnati, Ohio.*

Considerable corn has been exported to Manitoba recently, and it seems probable that much more will be exported to that province, as feedstuffs are high. Corn for feed is now admitted free of duty by Canada, so the feeder can take advantage of the cheap corn of the United States. The Commercial of Winnipeg says: The Winnipeg elevator companies have brought in considerable corn, which they are sending to country points to dispose of through their various country elevators to farmers. Other dealers have also been bringing in corn for shipment to country points as well as for consumption in the city. Some of this corn is being ground here and sold straight, or mixed with mill feed or ground oats, according to the desires of consumers.

Items from Abroad

The wheat crop of Italy is estimated at 86,836,700 bushels, about 60 per cent. of the crop of 1896.

During October France imported 517,000 quarters (of 480 pounds each) of wheat, and 11,000 sacks of flour.

The facilities for inland transportation are said to be so limited in Brazil, that the inhabitants of the ports find it cheaper to import grain from North America than from their own farms.

A new Cereal Exchange building will be constructed at Buenos Ayres, Argentine. It will be three stories in height, and will be furnished with a large hall for the meeting of the Exchange.

The statistician of the English grain trade, Mr. Bromhall, recently issued his annual statement of the world's wheat crop. He estimates that the European crops amount to 1,120,000,000 bushels, compared with 1,480,000,000 bushels last year. Compared with the so-called famine year of 1891 the deficiency of Europe this year is 80,000,000 bushels.

During the month of October, Belgium imported 360,000 quarters (480 pounds) of wheat, and 8,000 sacks of flour; the exports included 134,000 quarters of wheat and 10,000 sacks of flour, leaving the net imports 225,000 quarters, compared with 525,000 quarters in October, 1896. The net importation of these breadstuffs in the three months ending October was 1,030,000 quarters, compared with 1,214,000 quarters in the corresponding period last season.

Swedish official statistics give the yield of the 1897 wheat crop of Sweden as 555,000 quarters (a quarter is 480 pounds), which is slightly smaller than the outturn of the 1896 crop, but still 17 per cent. above the average. The rye yield is likewise smaller than that obtained in 1896, but above the average in quantity. Oats yield 7,100,000 quarters, being 7 per cent. below average. The quality of wheat is inferior to last year's, rye much sprouted, oats bad.

According to the last official crop report issued by the Rumanian Government the wheat crop will aggregate 4,400,000 quarters, against 8,600,000 quarters in 1896. The rye crop is given at 825,000 quarters, against 1,480,000 quarters in 1896; barley, 1,570,000 quarters, against 2,580,000 quarters in 1896, and oats 1,200,000 quarters, against 1,790,000 quarters in 1896. It is estimated that the wheat crop of 1896 was much larger than official estimates, probably amounting to 10,000,000 quarters.

According to the United States Consul at Reichenberg, Austria, an importation of 400 carloads of American wheat was made as early as August, arriving by the way of Hamburg. Other importations were reported, among them one of 36,700 bushels of red winter, No. 2, and Kansas wheat purchased through the Vienna Produce Exchange. It is expected that a considerable amount of American grain will find its way to Austria-Hungary on account of the shortage in their crop.

Since last Saturday to Wednesday rain has been general throughout the country, and the crops have been saved. Those that had been eaten by the locusts are again sprouting. The locusts are not doing much damage, and their destruction is being actively carried on. In about another fortnight the saltonas will make their appearance, and the real fight will then commence; but the general opinion is that both wheat and linseed will be too far advanced to be damaged.—*Review of the River Platte, October 23.*

Maize is extensively grown in Peru, where it is the article of food of the Indian population, which is estimated at nearly 2,000,000. The best kind is raised in the mountain region. In fact, the maize obtained from Urubamba, in the department of Cuzco, is famous, and has been exhibited in Europe. The Arequipa maize is also of excellent quality. In the province of Chancay, where this plant is used for fattening pigs, and in the valley of Arequipa, guano is used for its cultivation.—*Monthly Bulletin Bureau of American Republics.*

The action brought against the police authorities in connection with prohibiting the grain merchants from holding meetings at the Feen palast, Berlin, has resulted in a judgment rescinding the police order and mulcting the state treasury with the costs. This constitutes a decided check upon the authorities, and establishes the right of the grain trade to conduct its business in a private hall, which cannot be subjected to the regulations and restrictions of the Boerse law. The anti-option enthusiasts may come to their senses some day.

According to the *Resume Statistique de l'Empire du Japon* the areas under wheat and rye in that country steadily increased during the 5 years ending with 1895, while the area of barley, which remained almost stationary, was exceeded by that of rye. The average yield of wheat was from 15 to 18 bushels per acre, and of barley 22 to 26 bushels. In 1895 the acreage was wheat, 1,094,230 acres; bar-

ley, 1,600,350 acres; rye, 1,645,900 acres; rice, 6,809,100 acres. The yield was: Wheat, 19,709,270 bushels; barley, 42,352,350 bushels; rye, 34,797,920 bushels; rice, 198,007,570 bushels.

During the month of October, Germany imported 1,183,000 quarters (a quarter is 480 pounds) of wheat and 29,000 sacks of flour; the exports included 207,000 quarters of wheat, and 45,000 sacks of flour. The gross importation this season is about equal to last year's, but much more has been exported. Of the total importation of wheat in October, 1897, about 400,000 quarters went into store, but against this 530,000 quarters were withdrawn from store. The net importation in the first three months of this season amounted to 1,402,000 quarters, against 1,516,000 in same period of 1896-97, and 1,540,000 in 1895-96.

The Yerburgh Committee—a purely private enterprise—is still hearing witnesses on the "Proposed National Wheat Stores." This committee has certainly taken the evidence of the most "mixed" lot of witnesses that could well be brought together. One of the latest "experts" to be heard was Mr. Charles Smith, of anti-option renown. This gentleman held that the depressed price of wheat was largely the result of "futures" and "options," just as, once on a time, a certain old gentleman connected the Goodwin Sands with the erection of Tenterden steeple. Let this country follow the example of Germany, and prohibit dealings in "futures," said Mr. Smith, and then the stocks in the hands of millers and merchants would surely increase.

COMMISSION

Peter Gilley of North Duluth, Minn., is credited with the intention of entering the grain commission business in Duluth.

The grain commission firm of Spann & Chandler, Buffalo, N. Y., has been dissolved, and Mr. O. G. Spann will continue the business.

The Blair Commission Co. has been incorporated at Chicago, Ill., by James Blair, F. C. Blair and Alfred Parsons. The capital stock is \$5,000.

The Press of St. Cloud, Minn., says that the Minneapolis commission firm of Chas. E. Lewis & Co. contemplate establishing a branch house in St. Cloud.

T. L. Ewan has withdrawn from the Moffatt Commission Company, Kansas City, Mo., and will manage the Capital Elevator Company at Topeka. Mr. Moffatt will continue in business without taking in a new partner.

Murphy & Poor of Kansas City, Mo., have dissolved partnership. Mr. Poor will continue in business under the style of A. J. Poor Grain Company, and Mr. Murphy will resume the old name of Murphy Grain Company.

Articles of incorporation were granted to the Peoria Grain Co., Peoria, Ill., last month. Capital stock \$50,000, subscribed for by John Fay, Henry W. Lynch and William Meyers. Following the incorporation the company certified to a change of name to the A. B. Ellis Mfg. Co.

W. H. Howard of Webster City, Iowa, and others, of Chicago, have incorporated a grain company under the name of the W. H. Howard Commission Company, with a capital of \$25,000, for the purpose of handling cash grain, seeds and hay. They will have five offices located in different parts of Iowa.

The name of the commission firm of C. B. Congdon & Co., Chicago, Ill., has been changed to Hulburd, Warren & Co. C. B. Congdon, who is now a resident of Cleveland, Ohio, has not been active in the business for some time. Chas. H. Hulburd was formerly a member of the firm of Culver & Co., and later succeeded to the business of that house. W. S. Warren is president of the company.

S. W. Edwards & Son, of 110-120 N. Elizabeth Street, Chicago, Ill., have moved the commission and shipping department of their business to 602 Royal Insurance Building. They have associated with them in this business, Carl H. Thayer, formerly with Montague, Barrett & Co. The firm will do a general commission business in hay, grain and mill feed. The old firm of S. W. Edwards & Son will continue to operate their elevator, and will handle their city trade as usual.

The grain firm of C. F. Orthwein & Sons, for many years closely identified with the grain trade of St. Louis, having watched the rise and fall of that city as grain market, will after January 1 conduct only a branch office of their business in St. Louis, removing their main office to Kansas City. This statement was confirmed by Max R. Orthwein, secretary and treasurer of the United Elevator Company, the firm name under which C. F. Orthwein & Sons have for nearly a year past operated four leased elevators in Kansas City.—*Journal, Kansas City, Mo.*

The EXCHANGES

Col. C. Ross Smith, for many years secretary of the Philadelphia Commercial Exchange, died on November 10, aged 67.

The terms of the president and vice-president of the Chicago Board of Trade are about to expire. It being understood that President Baker will not stand for re-election, Z. R. Carter is talked of for the head of the ticket, with Henry Parker as vice-president.

The National Board of Trade convened in annual session at Washington, D. C., December 14. The Cincinnati Chamber of Commerce is represented by the following delegation: John A. Gano, William McCallister, Charles B. Murray, A. J. Mullane, L. C. Goodale, Wm. V. Ebersole, J. F. Ellison, E. P. Wilson, James J. Hooker, Casper H. Rowe.

Members of the Chicago Board of Trade doing business with San Francisco and Pacific Coast points are urging an extension of the trading hours, or rather a short session in the afternoon. They claim the coast business is worth catering to, and as the session in Chicago closes before the business day is half over on the Pacific Coast, they frequently have to refuse belated orders or fill them by curb trading. It is not likely, however, that the business session will be lengthened.

The Detroit Chamber of Commerce building was sold December 1 for default of payment of interest on the first mortgage, held by the New York Life Insurance Co. The purchasers were Leopold S. Fecheimer of Cincinnati, Ohio, and Wm. H. Winslow and Francis A. Winslow of Chicago, Ill., who were the only bidders. The purchase price was \$422,650. The structure is 13 stories high, and is occupied by the Board of Trade and many offices. It was recently appraised at \$825,000.

The Pennsylvania and the Baltimore & Ohio Railroads have made a change in the regulations for storing grain in their up-town elevators at Baltimore, to take effect January 1. The new regulations provide that when grain stored in separate bins is reduced to or below 500 bushels, it is to be regraded at the expense and risk of the owner and stored in a general bin with grain of the same grade. The members of the Chamber of Commerce recently held a meeting and adopted resolutions against the change, claiming it will lead to confusion and injure the trade. President Ramsay has notified the railroads of the action of the Chamber.

The Milwaukee Chamber of Commerce has adopted a new rule governing the grade of wheat deliverable on contracts. The following resolution was presented some time ago and adopted by an almost unanimous vote of the members: "Resolved, That section 7 of rule 11 be and is hereby rescinded and the following adopted in place thereof: Sec. 7. All contracts for purchase or sale of wheat, unless otherwise specified, shall be understood to be for No. 1 Northern Spring Wheat, and this grade or the higher grade of No. 1 Hard Spring Wheat, either in whole or in part, shall be delivered and shall be received in fulfillment of contracts. This section shall be in force and effect only from and after its passage and including Aug. 15, 1898."

The St. Joseph Board of Trade was organized November 18, and began its career with 25 members, including grain dealers, millers, feed and seed men. The following officers were elected: President, J. C. Gregg; vice-president, T. P. Gordon; secretary, T. D. Boydston; treasurer, Geo. H. Wyatt. The new body will be incorporated in due time. It is the intention of the Board to establish headquarters in the Board of Trade building, where samples of grain on the market can be exhibited. It is expected that in time this will lead to an Exchange conducted on a metropolitan plan. The Board proposes to devote itself exclusively to grain interests, and expects to meet with hearty support from the grain shippers of Missouri, Kansas, Nebraska and Iowa.

For nearly a month the Cincinnati Chamber of Commerce has been considerably agitated in regard to the appointment and election of a Weighing Committee. A committee was appointed by the Board of Directors to make nominations for the Weighing Committee. The proposition to recommend the name of John F. Furlong, one of the public weighers, as a member of the Weighing Committee, stirred up a nearly exhaustive argument. The only feature of the special committee's work that was definitely decided was, that a public weigher may not become a member of the Weighing Committee. A majority and a minority report have been presented to the Board of Directors by the special committee, which leaves an interesting point for the directors to decide, namely: Whether or not only the grain trade may vote or be consulted in the appointment of the Weighing Committee. The whole affair from start to finish has been a contest between the grain men who are members of the Grain, Hay and Feed Receivers' Association and those who are not. If the

Board sustains the majority report, the Receivers' Association will have won a victory over that portion of the grain trade classed as outsiders.

The Milwaukee Chamber of Commerce has adopted a rule making No. 2 contract grade on sales of corn, oats and barley for future delivery. This action was proposed some time ago in the form of the following resolution: "Resolved, That rule 11 be and hereby is amended by adding the following to section 7 of said rule, viz.: All contracts for the purchase or sale of oats and corn in this market, unless otherwise specified, shall be understood to be for No. 2 white oats and No. 2 corn, and these grades, or higher grades of the same kind of grain, shall be delivered and shall be received in fulfillment of such contracts. All contracts for the purchase or sale of barley in this market, maturing after the 31st day of August in each year, unless otherwise stipulated, shall be understood to be for No. 2 barley of the crop last harvested."

The Sioux City Board of Trade has been incorporated at Sioux City, Iowa, by A. W. Erwin, W. P. Manley, T. P. Gere, F. L. Eaton, C. A. Knapp, H. J. Hutton, John H. Keene, J. V. Mahoney, E. M. Estabrook, and E. H. Stoue. The authorized capital stock of the corporation is \$10,000, divided in 400 shares of \$25 each. The existence of the Board dates from December 1, and the first business session of the Board of Directors occurred on December 7, at which time the officers were elected. The following article defines the objects and purposes of the Board: "Its objects, purposes and powers are, to foster and promote the trade and commerce of the city of Sioux City, and to establish and maintain commercial and financial exchanges therein; to reform abuses in trade or business; to secure freedom from unjust or unlawful exactions; to acquire and diffuse commercial and economical information; to produce uniformity and certainty in the customs and usages of trade and business; to settle differences between its members; to promote a more liberal and friendly intercourse between merchants and business men; and, generally, to secure to its members the benefits of co-operation in the furtherance of their legitimate pursuits."

OBITUARY

Michael Sissung, of the grain firm of Sissung Bros. of New Orleans, La., is dead.

The death of Sellick Wood occurred recently at Ann Arbor, Mich. He was a member of the grain and produce firm of S. Wood & Co.

George H. Rugg, inventor of the reaper blade, died at his home in Ottawa, Ill., on December 5, of heart trouble. He was 74 years of age.

Truman C. Greene, a grain dealer at Torrington, Conn., died at his home November 12. He was born at West Hartford, Jan. 1, 1842, and leaves a wife and three sons.

A. J. Bowman, grain dealer of Kirwin, Kans., died recently from a stroke of paralysis which he received November 27. He remained unconscious after the first attack, until his death.

Otto Ewe of La Crosse, Wis., died December 6 at 63 years of age. He was engaged in the grain commission business for a number of years, but discontinued the business in 1895. His wife and two children survive him.

Henry T. Neal of Bloomfield, Ind., died November 12 of blood poisoning. He was a member of the grain firm of Dugger, Neal & Co., the milling firm of Geo. W. Catt & Co., the Summit Coal Co. and the Lyons Mill and Elevator Co. He was 54 years of age.

Heury Weaver, a resident of Altou, Ill., since 1842, died at his home there on November 21. He was born in Pennsylvania 78 years ago. He was at first engaged as a miller, but for many years past has been engaged in buying grain for the Altou Mills.

Isaac McNutty, a retired grain merchant of New York City, died November 16, at his home, 161 W. Eighty-third Street. He was in his seventy-second year, and a native of Franklin County, New York, where his ancestors formerly owned the greater part of the county.

Daniel McIntyre, grain buyer for the Stevens-Campbell Co. at Chatham, Ont., died November 28, after an illness of less than two days. His complaint was pronounced as inflammation of the lungs. He was well known and liked in the community in which he lived.

Robert J. McDaniels, formerly of Baltimore, Md., died at Kansas City, Mo., on December 3, of heart trouble, after a few days' illness. He was 64 years of age. He had been engaged in the grain commission business at Baltimore, and removed to Kansas City about a year ago, and started in the same

business in that city. He was well known in Baltimore, and had many friends among the trade in that city.

Geo. W. Davis, who for a number of years was engaged in the grain business at Marlboro, Mass., died November 15, of heart trouble. He was born at Ashburnham, Mass., 65 years ago.

Thomas Dixon Purnell died at Snow Hill, Md., November 28, at the age of 77. He was a leading citizen of his county, and in his earlier days was a dealer in grain. He owned several vessels which were partially employed in handling his grain.

Henry Weiss, senior member of the firm of Weiss, Groh & Co., dealers in grain at Avon, Pa., died suddenly of apoplexy on November 20, while engaged at work in the warehouse. He was 65 years of age, and a war veteran, having been sergeant of the 48th Pennsylvania Volunteers.

Daniel Stewart, aged 74, died at his home in Detroit, Mich., November 28, from blood poisoning. He was a native of Argyleshire, Scotland. For a number of years he had charge of the Michigan Central R. R. Co.'s grain business, and was well known throughout the state. Since 1877 he has been in the grain and feed business, the firm now being Daniel Stewart & Sons.

PERSONAL

Gil Sears is superintendent of the Thyson Elevator recently opened up at Venice, Ill.

Warren Mann has charge of Carrington, Hannah & Co.'s new elevator at Manteno, Ill.

D. S. Flech of Lynnville, Iowa, has charge of Johnson & Co.'s elevator at Templeton, Iowa.

Fred Woodward, grain buyer for Crocker & Co. at Lanes, Ill., is reported as being very ill.

P. A. McGuire has charge of the elevator which W. W. Cargill & Co. recently opened at Janesville, Wis.

The Central Elevator at Arlingou, Minn., is now running under the management of John Minkiewitz.

A. P. Johnson of Crookston, Minn., is now buying grain at St. Hilaire for the St. Anthony & Dakota Elevator Co.

E. D. Wells has succeeded C. R. Tillson in the management of Geo. W. McNear's grain warehouses at Modesto, Cal.

W. B. H. Kerr, formerly of Waukesha, is managing the elevator of F. Krause & Co. at North Lake, Wis., where large quantities of barley are being handled.

C. A. Caton now has an interest in the Illinois Milling & Shipping Co. at Ottawa, Ill. He has had long experience in bookkeeping, and will have charge of the books.

Wesley Nading, the grain merchant who shot and killed his young wife at Flatrock, Ind., a few weeks ago, has been adjudged insane and taken to the asylum at Indianapolis.

E. J. Smiley, secretary of the Grain Dealers' Association of Kansas, and secretary of the Trans-Missouri Federation of Grain Dealers' Associations, will move to Concordia, Kans., January 1.

James E. Seaver, who for some months had charge of the Capital Elevator at Topeka, Kans., has returned to Kansas City, Mo., and entered the grain trade under the name of the Seaver Grain Co.

Will A. Moses and Miss Clara Breisford were married at Middletown, Ohio, November 23, and went at once to their cozy home in Carlisle, where Mr. Moses is connected with the Carlisle Elevator Co.

It is expected that W. L. Lyons will be appointed on the Board of Public Safety at Louisville, Ky. Mr. Lyons is a popular Democrat and member of the grain and stock brokerage firm of W. L. Lyons & Co.

T. L. Ewan, formerly in the grain business at North Topeka, Kans., and for three years past the secretary of the Moffat Grain Co. at Kausas City, has succeeded J. E. Seaver in the management of the Capital Elevator at Topeka.

Wm. F. Wheatley of Baltimore, Md., received the congratulations of many friends on December 7, it being the thirtieth anniversary of his appointment as secretary of the Baltimore Corn and Flour Exchange, now the Chamber of Commerce.

The wedding of Mr. Charles C. Orthwein and Miss Edith Hall occurred at St. Louis on November 16. It was a very pretty, though quiet affair. Mr. Orthwein is a member of the well-known grain firm of C. F. Orthwein & Sons. After a short stay in the Blue Ridge Mountains, Mr. and Mrs. Orthwein took up their residence in Kansas City, where his company has important business interests.



S. A. Oliver has sold out his hay and feed business at Rapid City, S. Dak.

The hay and feed firm of Street & Broner at Norwalk, Conn., has been dissolved.

It is reported that Chas. L. Hedemark, dealer in hay and grain at San Francisco, Cal., has failed.

The Allen-Johns Co. has commenced a hay and grain commission business at Nashville, Tenn.

N. F. Babb & Son have purchased the hay and coal business of Lucius B. Angier at Somerville, Mass.

F. H. Eckenrode's hay warehouse at Taneytown, Md., was burned November 27. Loss \$8,000; insurance \$5,600.

Wm. White's barn at Meaford, Ont., well filled with hay and grain, was burned November 30. Loss \$4,500; insurance \$2,300.

M. Isaac has bought out the interest of his partners in the wholesale hay and grain firm of Glauber & Isaac of Brunswick, Ga.

Mrs. E. A. Hughes & Son, hay, grain and coal dealers of Nashville, Tenn., have sold their hay and grain business to Neese Bros.

Seventy-five tons of hay were consumed on November 16 in the fire which destroyed the barn of Fancott Bros., near West Chester, Pa.

On November 15 the barn of H. I. Simmons at New Lebanon Mass., was destroyed by an incendiary fire. The contents included 75 tons of hay.

Horace Riegner, a hay and grain dealer of Pottstown, Pa., has erected a warehouse and put in a hay baler to accommodate his increasing business.

A large warehouse at Pensacola, Fla., which was used by several firms as a warehouse for the storage of hay and feedstuffs, was burned November 25.

Chicago roads have not built any warehouses for the accommodation of the hay trade yet, and they won't until the dealers get together and work for them.

The storehouse belonging to the Rockville Milling Co. of Rockville, Conn., burned November 23, causing the loss of a considerable amount of hay and grain.

R. T. Lovell of Climax has removed to Battle Creek, Mich., where he has purchased and will conduct the hay, feed and wood business of Browning & Son.

The New York market has been showing an increased demand of late for straw of good quality. The demand for a good grade of long rye is also increasing.

The next place of meeting of the National Hay Association will be decided soon by the Executive Committee. There are two candidates in the field, Buffalo and Indianapolis.

The Fort Wayne Warehouse Co., 22-24 Wells Street, Fort Wayne, Ind., has been formed by C. J. McLain and C. S. Ridenour. They will do a commission business in hay and grain.

At Pittsburg, Kans., November 15, the barn of W. A. Dougherty was struck by lightning and burned. Among its contents was 150 tons of hay, on which there was but small insurance.

August F. Franklin, a pioneer resident of Brunswick, Ga., died at his home in that city recently. For many years, and until about a year ago, he conducted a hay and grain commission business.

It is reported that G. W. Reynolds of Waterville, one of the largest hay buyers of Central Maine, talks of locating in Chelsea, Mass., where he is negotiating for a large feed and grain establishment.

It is found necessary to caution shippers frequently in loading hay into cars, to have the grade run as uniform as possible, as one or two bales of poor hay with a carload of good hay may spoil the sale of the whole car.

The Board of Trade Hay and Grain Dealers' Association, Chicago, Ill., was incorporated November 20, without capital stock. Its object is mutual benefit and protection, to reform abuses, and prevent business disputes and adjust same. The incorporators are: James W. Fernald, president; George R. Geist, vice-president; William J. Byrne, secretary; Frederick Grimsell, treasurer; John J.

Badenoch, George S. Blakeslee, William Wittman, William Kemper, Michael B. Herely, Charles W. Kopf, Henry N. Lagrentz, George Bauder and James B. Carter.

Leaverett Stone, a wholesale hay, grain, flour and feed dealer of Tompkinsville, Staten Island, N. Y., died November 28 of typhoid pneumonia. He was 31 years of age, and was a member of the Staten Island Chamber of Commerce.

Early on the morning of November 23, an attempt was made by amateur safe-crackers to open the safe in the office of Scott & McCord, hay and grain dealers at San Francisco, Cal. They only succeeded in hammering off the knob.

The Post-Express of Rochester, N. Y., says that the cry of farmers in every section is that next year's hay crop is in great danger, as the mice are so thick in some places that clover fields look like plowed ground, because of burrows.

Many of the leading hay commission and shipping firms of the country are now members of the National Hay Association, and others are joining. Hay dealers would advance their own interests materially by joining this organization.

John McCord, member of the firm of Scott & McCord, hay and grain dealers, died at his home in San Francisco, Cal., on November 20. His death was the result of the formation of a clot of blood at the base of the brain. He was a native of Canada and 50 years of age.

W. Affleck Sr. has retired from the hay commission firm of W. A. Affleck & Co., New York City, and his son, W. Affleck Jr., together with E. Hallock, continues the business as heretofore. Mr. Affleck Sr. has been in the trade for 45 years. He was one of the organizers of the New York Hay Exchange, and an active member of the National Hay Association.

The directors of the National Stock Yards, East St. Louis, Ill., have passed a resolution reducing the price of hay 25 cents per 100 pounds, and corn 15 cents per bushel. Several months ago a similar reduction was made. A daily average of fifteen tons of hay is used at the National Stock Yards. It is the chief food, only 300 to 400 bushels of corn being consumed.

Exports of hay from the United States, according to government statistics, amounted to 6,189 tons, valued at \$82,188, during September, against 4,500 tons, valued at \$62,047, for the same month in 1896. During the nine months ended with September hay exports amounted to 51,499 tons, worth \$712,955, against 48,326 tons, worth \$690,255, during the same months of 1896.

The Secretary of the National Hay Association has left a few copies of the neat little pamphlet containing the verbatim report of the Pittsburg meeting, the grades of hay and straw established by the Association, the constitution and by-laws of the Association, and a list of the members, which he will gladly send to persons engaged in the baling and shipping of hay, whether they are members of the Association or not. If you wish a copy address a request to F. F. Collins, secretary and treasurer of the National Hay Association, P. O. Box 505, Cincinnati, Ohio.

The warehouse of the Los Angeles Hay Storage and Milling Co. at Los Angeles, Cal., was destroyed by fire November 23. The entire loss will aggregate nearly \$22,000. The origin of the fire is unknown, but it is thought to have been the work of tramps. The warehouse contained fully 2,600 tons of hay, or nearly 30,000 bales. Three hundred tons was the property of the company, while the balance was stored by farmers. The Storage Company carried \$15,000 insurance on hay, and \$3,000 on the warehouse. Considerable insurance was also carried by many of the farmers.

Notwithstanding the short crop of hay in Quebec, unless there is an export demand there will be more than our farmers know what to do with. Up to the present, Ontario has supplied a good deal of the deficiency of this province, and if ocean freights do not come down to 20s. or 15s. it is feared there will be very little chance of exporting much hay to Great Britain during the coming season. A lot of hay is going via St. John, N. B., for Liverpool, and from New York last week 1,694 bales went to Bristol, 900 bales to London, and 1,241 bales to Glasgow.—Trade Bulletin, Montreal.

A great deal of objection is being raised to the ordinance recently introduced by Mr. Von Spreckelsson which makes it unlawful to sell or expose for sale any grain or cereal except wheat or oats unless it has first been weighed on the city scales at Pine and Washington streets, and a certificate of weight obtained. The object of the ordinance is to foster the city hay market, which has practically been ruined by private competition. The inconvenience that the ordinance would cause is what is raising the principal objection. It has been suggested that a way of obtaining the result desired by the ordinance would be to impose a license fee of \$25 or less sum on each private market, and with the proceeds the city could pay the salary of an inspector

whose business it would be to see that the private scales give good weight.—Sentinel, Indianapolis, Ind.

It is estimated that throughout the central states farmers have put up fully two-fifths more corn fodder this year than in previous years. This will mean that the large crop of hay which has been raised in these states will nearly all find its way to the various markets. Chicago buyers, by reason of this fact, are advising shippers to send in their hay at once instead of waiting for expected future higher prices.

REVIEW OF CHICAGO HAY MARKET.

The prices for hay ruling in the Chicago market during the last four weeks, according to the Trade Bulletin, were as follows: During the week ending November 20 the receipts of hay were 5,368 tons, against 3,897 tons the previous week. Shipments for the week were 230 tons, against 204 tons for the previous week. The market for Timothy hay ruled firm during the week. The arrivals were small, and the demand good. Prairie hay ruled steady. The offerings were larger, and local inquiry was moderate.

During the week ending November 27 the receipts were 4,757 tons, against 5,368 tons the previous week. Shipments for the week were 264 tons, against 230 tons for the previous week. During the early part of the week the offerings of all descriptions were light, and the demand was good on local account. Later the arrivals became more liberal, and the demand fell off. The market closed dull. Sales of Choice Timothy ranged at \$9.00 @ 10.00; No. 1, \$8.00 @ 9.00; No. 2, \$7.50 @ \$8.00; Not Graded, \$7.00 @ \$8.00; Choice Prairie, \$7.50 @ 9.00—outside for fancy Kansas; No. 1, \$6.50 @ 7.50; No. 2, \$6.00 @ 6.50; No. 3, \$5.50; No. 4, \$5.00. Rye straw sold at \$6.00 @ 6.50, and oat straw at \$4.00 @ 5.00.

During the week ending December 4 the receipts were 5,997 tons, against 4,757 tons the previous week. Shipments for the week were 305 tons, against 264 tons for the previous week. The market ruled dull during the early part of the week. The arrivals were liberal, and only a moderate demand existed. Toward the close the receipts became smaller, and the demand improved. The market closed firm with no material change in prices. Sales of Choice Timothy ranged at \$9.00 @ 9.50; No. 1, \$8.00 @ 8.50; No. 2, \$7.00 @ 7.50; Not Graded, \$6.00 @ 8.50; Choice Prairie, \$7.50 @ 8.00; No. 1, \$6.50 @ 7.25; No. 2, \$5.50 @ 6.50; No. 3, \$5.50; No. 4, \$4.00. Rye straw sold at \$5.75 @ 6.50. Wheat straw at \$4.50, and oat straw at \$4.00 @ 4.50.

During the week ending December 11 the receipts were 5,690 tons, against 5,997 tons the previous week. Shipments for the week were 484 tons, against 305 tons for the previous week. A moderate business was transacted throughout the week. The arrivals were only fair, and the demand was sufficient to keep the market well cleaned up. Prices ruled very steady with little change from the previous week. Sales of Choice Timothy ranged at \$9.00 @ 9.50; No. 1, \$8.00 @ 8.75; No. 2, \$7.00 @ 8.00; No. 3, \$6.00 @ 7.50; Not Graded, \$6.50 @ 7.50; Choice Prairie, \$7.50 @ 8.00 for Iowa, and \$8.25 @ 9.00 for Kansas—outside for fancy; No. 1, \$6.50 @ 7.00; No. 2, \$5.50 @ 6.50; No. 3, \$5.00 @ 5.75; No. 4, \$4.50. Rye straw sold at \$6.00 @ 6.50, and oat straw at \$4.50 @ 5.00.

HAY TERMINAL WAREHOUSES FOR PITTSBURG.

The hay dealers of Pittsburg are determined that the railroads shall provide hay warehouses for the accommodation of the trade of that market, and they are working earnestly to secure the erection of such warehouses. A meeting of the Grain and Flour Exchange, held on December 4, for the purpose of receiving a report of a committee that had conferred with the railroad companies, gave much encouragement to the dealers, and resulted in the appointment of a larger committee.

The meeting was a large and enthusiastic one. In the absence of the President, John J. McCaffrey presided, and after the committee's report he appointed a committee to follow up the matter of conferring with railroad officials, to the end that hay terminals, or warehouses, may be secured at convenient points. Some time ago D. G. Stewart was delegated to see the railroad officials in relation to the matter. The hay dealers say Pittsburg would probably be the fourth city in importance as a hay center, if equipped with hay warehouses.

At present 12,000 cars of hay are handled annually at Pittsburg. If Pittsburg had any means of handling grain, that branch of the business would also be largely built up. There are no elevators there except one or two private ones, and the dealers desire the railroads to afford them both elevators and hay terminals, which the railroads now seem inclined to do.

The Railroad Committee reported through D. G. Stewart that the Pennsylvania Company contemplate locating their produce yards on the Allegheny Valley Railroad at Sixteenth Street, and the grain and hay yards at Twenty-sixth Street. Inspection of hay now is not as satisfactory as it could be, as the inspector has no chance to handle it. With a hay terminal, it can be examined. To afford such inspection, the railroad proposes to erect a ware-

house where cars may be unloaded on a platform and the entire contents inspected.

The Panhandle intends to make some changes and may provide a hay terminal with facilities for storing and weighing. The Baltimore & Ohio also contemplates providing some accommodations for the hay business, so taken all in all the outlook for the Pittsburg hay dealers is decidedly encouraging.

Mr. McCaffrey appointed a committee consisting of Messrs. H. G. Morgan, J. W. Smith, L. S. McKallip, Robert Thorn and W. A. McCaffrey, to call on the proper officials of all the railroads in the city to discuss the matter more fully with them as to details. The committee will begin work at once, and report to the Exchange at its next meeting.

Pittsburg is one of the important hay distributing centers of the country, being the natural outlet for the surplus of Western Pennsylvania, Southern Ohio, Indiana, Illinois and part of Kentucky.

Late Patents

Issued on November 16, 1897.

Bale Tie.—John W. Griswold, Troy, N. Y. No. 593,843. Filed May 17, 1895.

Vaporizing Carburetor and Air Governor for Gas Engines.—Franklin F. Snow, Benton Harbor, Mich. No. 593,911. Filed Nov. 7, 1896.

Muffler for Gas Engines.—Charles A. Schwarm, Pittsburg, Pa., assignor of one-half to Geo. Troutman, same place. No. 593,970. Filed Sept. 28, 1896.

Gas Engine.—Albert Rosenberg, Baltimore, Md. No. 593,859. Filed May 1, 1896.

Issued on November 23, 1897.

Bean Picking Machine.—Marcellus A. Lohr, Charlotte, Mich., assignor of one-half to Wm. Wildt, same place. No. 594,028. Filed March 10, 1897.

Valve Gear for Gas or Oil Engines.—Charles Wood, London, Eng. No. 594,146. Filed Dec. 30, 1896.

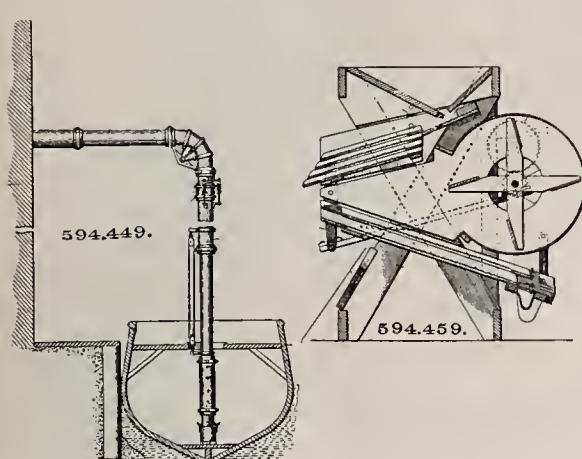
Valve Gear for Gas Engines.—Frank S. Mead, Montreal, Canada. No. 594,260. Filed Nov. 14, 1896.

Issued on November 30, 1897.

Igniter for Explosive Engines.—Wm. Bayley, Springfield, Ohio. No. 594,372. Filed July 14, 1896.

Baling Press.—Arnold Almy, Middleburg, N. Y. No. 594,771. Filed Sept. 9, 1896.

Elevator Marine Leg.—Frederick J. Weber, Crawfordsville, Ind. No. 594,449. Filed Jan. 29, 1897. See cut.



Double Grade Grain Cleaner.—Andrew J. Cleland and Herbert W. Cleland, Mankato, Minn. No. 594,450. Filed April 15, 1895. See cut.

Issued on December 7, 1897.

Mill for Cutting Grain.—Elvah C. Smith and James O. Smith, Newton, Iowa. No. 594,972. Filed April 10, 1897.

Gas Engine.—John Q. Chase, Dayton, Ohio. No. 595,043. Filed May 28, 1896.

DESIGNS.

[Issued since our last publication.]

Dust Protector.—Harvey S. Cover, South Bend, Ind. No. 27,962. Filed Oct. 6, 1897. Term of patent, 7 years.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

ATLAS ENGINE FOR SALE.

For sale, one 70-horse power Atlas Automatic Engine, in perfect order. Been run only three years. Address

SHANNON & MOTT CO., Des Moines, Iowa.

FAIRBANKS TRACK SCALES.

For Sale—Two Fairbanks railroad track scales, 50 tons capacity each; guaranteed perfect condition. Address

FRANK MARSHALL, 84 Traders' Bldg., Chicago, Ill.

ILLINOIS GRAIN BUSINESS.

Grain business for sale Buy one, lease one elevator. Only dealer. Good coal business in connection, if desired. Price \$2,200. Address

LOCK BOX 486, Somonauk, Ill.

ILLINOIS MILL AND ELEVATOR FOR SALE.

Anyone wanting a good bargain in a choice 125-barrel mill with elevator connected, in Central Illinois, and in the best grain country, should investigate this. Best of reasons for selling. Will sell or trade for land. Address

Z. K., Box 12, "American Elevator and Grain Trade," Chicago, Ill.

PENNSYLVANIA ELEVATOR.

For Sale—Elevator of 250,000 bushels' capacity. First-class 80-horse power engine, corn sheller, cleaners, three run of burrs for feed. Fully equipped for handling an extensive business. Located at Pittsburg, the best distributing point in the state. Allegheny County alone has a population of 600,000. Track connections with the entire Pennsylvania R. R. system. This is a bargain for a live man. Address

M. F. HIPPLE & CO., 316 Fourth Ave., Pittsburg, Pa.

ILLINOIS ELEVATOR FOR SALE OR RENT.

Elevator in the best grain region of Illinois for rent or sale. The best built and most complete house in this part of the state, on the C. C. C. & St. L. R. R. (Big Four). Has ear corn and grain dump, office scales, hopper scales, one run of 3½-foot French burrs, sheller and cleaner, 30-horse power engine, etc. Must be seen to be appreciated. Handled 75,000 bushels of grain in December and January. Write for description to

LEVI RICHNER, Mansfield, Ill.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

SUPERINTENDENT WANTED.

Wanted—A thoroughly practical elevator superintendent. Handling barley, corn and oats. Address, with full particulars as to experience and salary required.

ELEVATOR SUPERINTENDENT, Box 12, "American Elevator and Grain Trade, Chicago, Ill.

REPRESENTATIVES WANTED.

Millwrights, machinery dealers and manufacturers' agents wanted to represent us in their territory, on commission, for the sale of elevating, conveying and power transmitting machinery, mill and elevator supplies. Address

WELLER MFG. CO., 118 and 120 North Ave., Chicago, Ill.

ELEVATOR WANTED.

A thoroughly competent grain man desires to correspond with owners of elevators in a first-class corn and wheat country, with a view to buying or leasing an elevator, which must be well equipped with machinery for handling grain, and first-class in every particular. Elevator must also be well located and doing a good business—no undesirable property wanted. Would consider proposition from owners to manage a grain business for a share of the profits. Can furnish first-class reference. Address

J. B. SNEDEKER, Astoria, Fulton Co., Ill.

ELEVATOR MAN WANTED.

Wanted—Man to handle clippers, cleavers, and assist in general elevator work. One competent to grade wheat and oats preferred. References required. State wages expected. Address

MARINE ELEVATOR CO., Buffalo, N. Y.

Locations for Industries.

The name of the Chicago, Milwaukee & St. Paul Railway has long been identified with practical measures for the general upbuilding of its territory and the promotion of its commerce, hence manufacturers have an assurance that they will find themselves at home on the Company's lines.

The Company has all its territory districted in relation to resources, adaptability and advantages for manufacturing, and seeks to secure manufacturing plants and industries where the command of raw material, markets and surroundings will insure their permanent success.

Mines of coal, iron, copper, lead and zinc, forests of soft and hard wood, quarries, clays of all kinds, tanbark, flax and other raw materials exist in its territory in addition to the vast agricultural resources.

The Chicago, Milwaukee & St. Paul Railway Company owns 6,168 miles of railway, exclusive of second track, connecting track or sidings. The eight states traversed by the Company, Illinois, Wisconsin, Northern Michigan, Iowa, Missouri, Minnesota, South Dakota and North Dakota, possess, in addition to the advantages of raw material and proximity to markets, that which is the prime factor in the industrial success of a territory—a people who form one live and thriving community of business men, in whose midst it is safe and profitable to settle.

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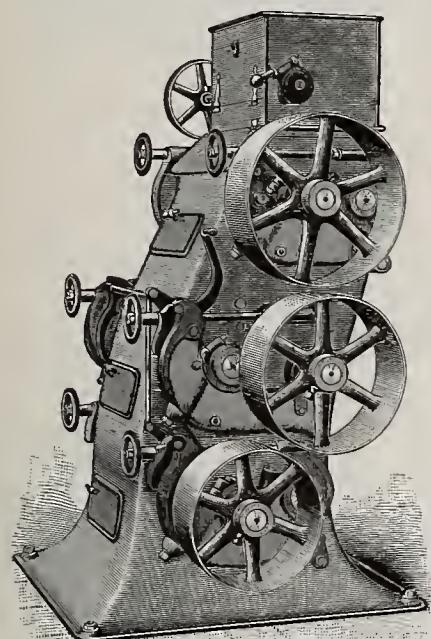
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QUALITY TO SUIT THE MOST EXACTING.

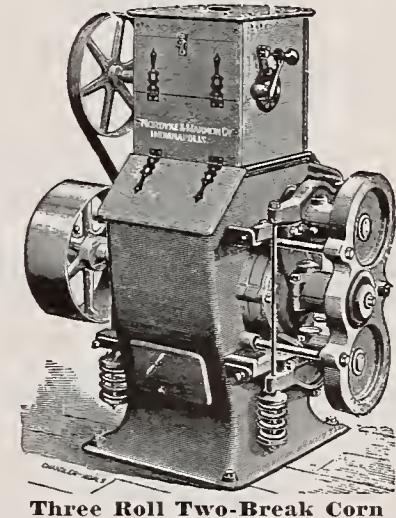
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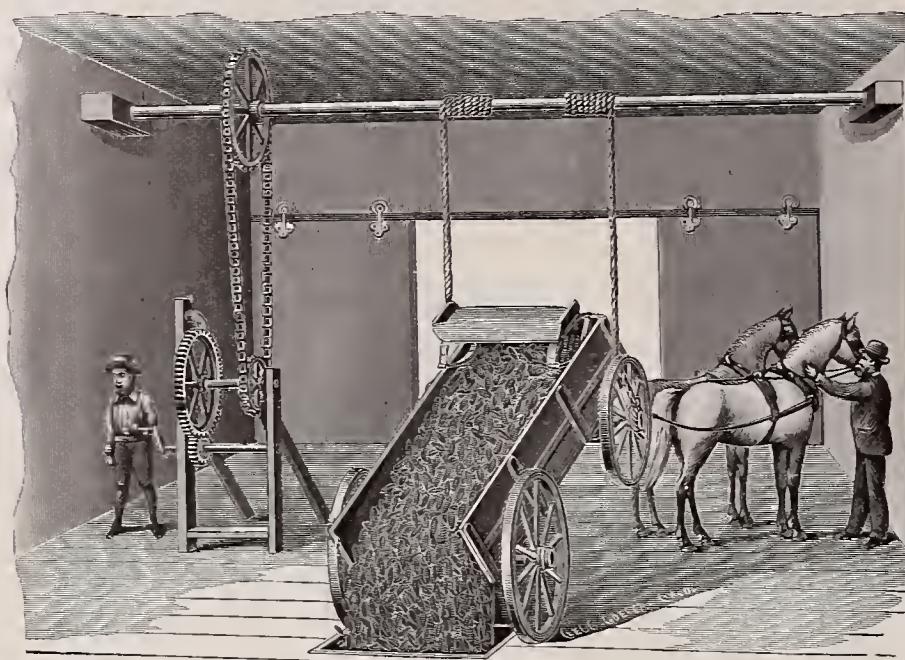
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Feeder will feed corn from the dump to the elevator or sheller with or without drag belt. Will feed 100 to 1,500 bushels per hour without any attention. Can be regulated to the capacity of the sheller or elevator while in operation. Can be made to feed either sheller or elevator by changing reverse board. It is made of iron and is very durable. It will last a lifetime. Can be applied to dump now in use at very little expense. We have over 5,000 of these machines in use that are giving universal satisfaction.

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For unloading grain or coal from cars, grain from large bins, etc.

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Dust Protector.

The "Perfection" has an improved Automatic Valve, which compels perfect protection and ventilation. Thousands in use.

Nickel plated protector, postpaid, \$1. Cir. free.

Patented Dec. 7, 1897. S. H. S. COVER, 11 SOUTH BEND, IND.

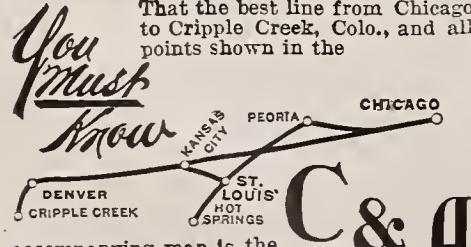


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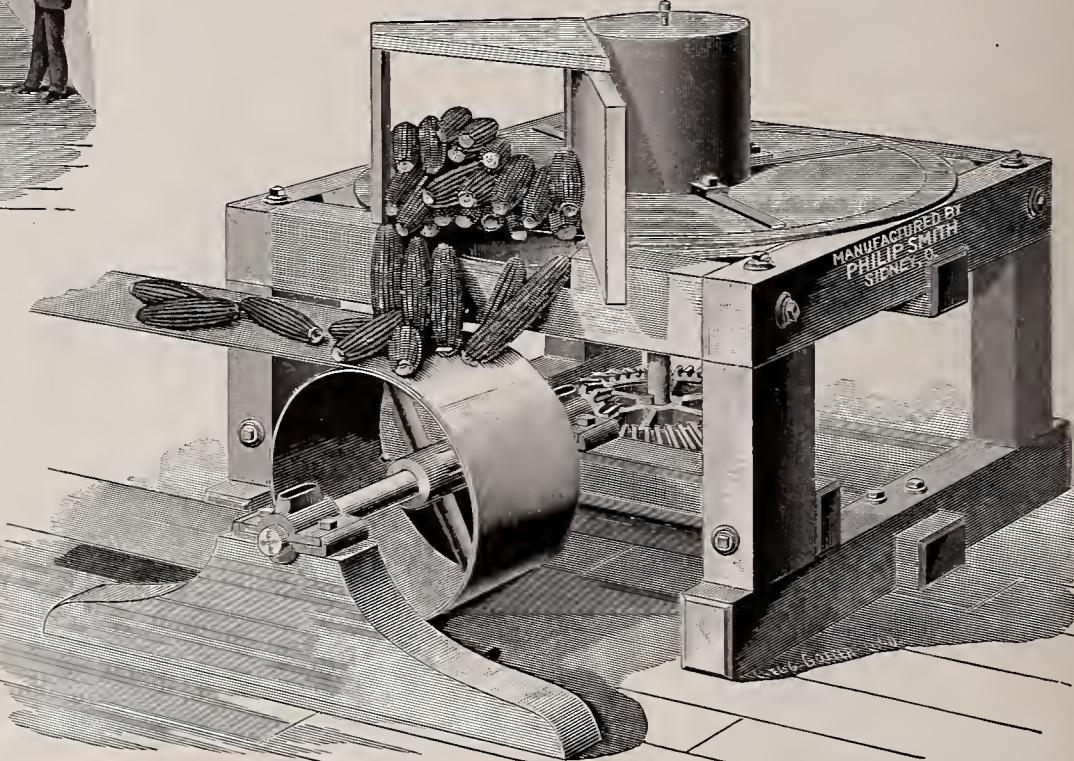
That the best line from Chicago to Cripple Creek, Colo., and all points shown in the



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It is easy to find the word wanted.
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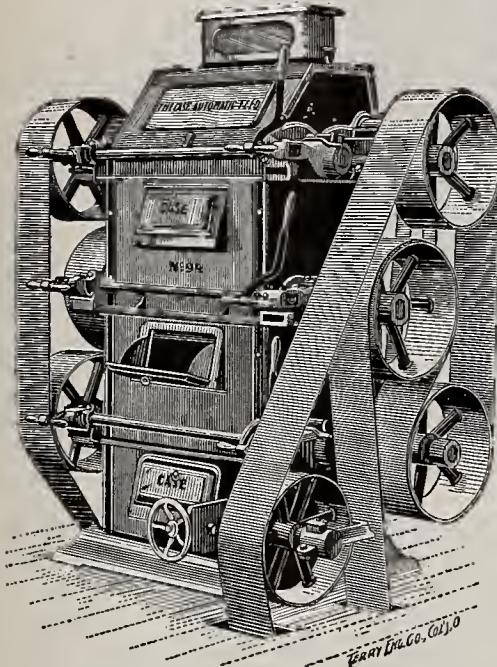
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The Case Three-Pair High Corn and Feed Roller Mills

Are made in four sizes, and always do perfect work.



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She is a daisy. We have smiles all over our faces like a full moon. Now, if you want a statement regarding the roll, let me know, and will write you a good one. Everything all O. K.

Yours respectfully,

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We Keep a Full Line of
ELEVATOR AND MILL SUPPLIES
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Grain Cleaners, Corn Shellers, Corn Cleaners and Scourers.

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Should join the **Grain Dealers' National Association** and thereby help to support an organization which is seeking to promote the common interests of regular grain dealers, and to protect them in their business.

It seeks to secure the payment of a loading fee of two cents per 100 by railroad companies, to members, who receive grain for loading into cars and give three days storage free to all who wish to ship over carriers' lines.

It seeks to relieve its members from competition with irregular shippers and to discourage the sending of market quotations to any but regular grain dealers. It also strives to encourage the shipping of grain only to receivers who do not solicit or encourage shipments by others than regular grain dealers.

It seeks to guard and champion the interests of regular grain dealers in all matters of national scope, and especially in legislation by Congress or legislation which will affect the interests of the regular dealers of more than one state.

It is in favor of clean bills of lading and seeks to secure correct weights and to reduce shortages.

It is striving to relieve the regular dealer from the exactions and impositions heaped upon him by the rail carriers, insurance men and others.

It seeks to secure the adoption of clear and equitable rules governing the grading of grain in all markets and the equitable enforcement thereof.

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The membership consists of two classes of members; detached and associated. The detached members are members of this Association regardless of their membership in any other organization. The associated members have membership in this association by reason of their membership in a state, district or local association which has been admitted to membership in this association. The constitution provides that,

"Any person, firm or corporation operating a grain elevator, and engaging in the buying and selling of grain continuously, may become a detached member of this association; also. Any person, firm or corporation who has engaged in the buying and selling of grain continuously at one station for a period of two years, yet has no elevator, may, upon the recommendation of two persons, firms or corporations, who are members of this Association in good standing, and are operating grain elevators in the same or nearby stations, be admitted to detached membership.

"Regular grain receivers and track buyers who do not sell grain for or buy grain from grain scalpers, irregular grain dealers, or transient grain buyers, 'scoop shovel men,' may be admitted to detached membership on the payment of the regular fees, and shall be rated the same as the owner of one elevator."

The officers are W. T. McCray, Kentland, Ind., president; E. A. Grubbs, Greenville, Ohio, first vice-president; J. M. Sewell, Hastings, Neb., second vice-president, and Charles S. Clark, Chicago, secretary. The directors are A. E. Clutter, Lima, O., H. N. Knight, Monticello, Ill., T. P. Baxter, Taylorville, Ill., M. McFarlin, Des Moines, Iowa, and H. B. Hieatt, Willis, Kans.

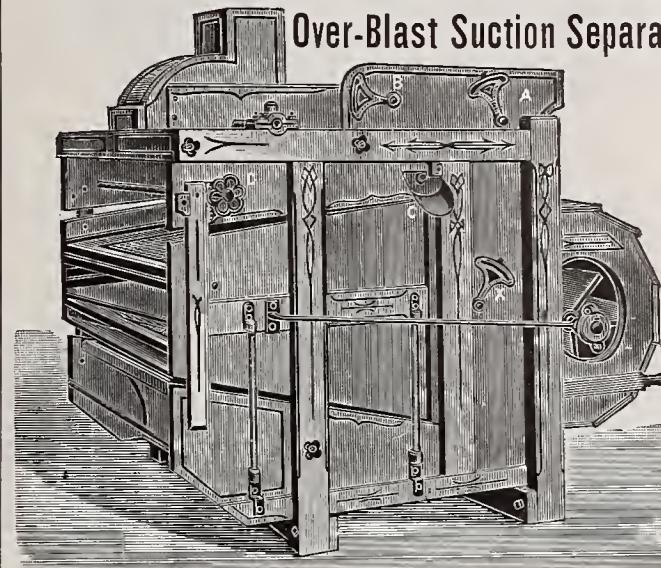
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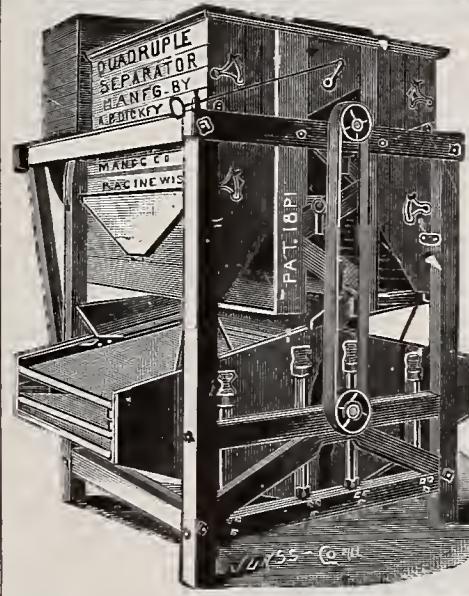
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STANDARD
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"Grain
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Manufactured in any desired size and pattern, with capacities to accommodate the largest Elevator and Flouring Mills, or small Warehouses for hand use. Single and Double, End and Side Shake, and Dustless Separators, both Under and Over-Blast.



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This system has nothing in common with other methods, but is entirely different and distinct, in construction, arrangement and operation, materials used, principles involved, and results obtained, from all others heretofore in use.

It is fully protected by 20 patents already issued, and others pending, in the United States and principal foreign countries.

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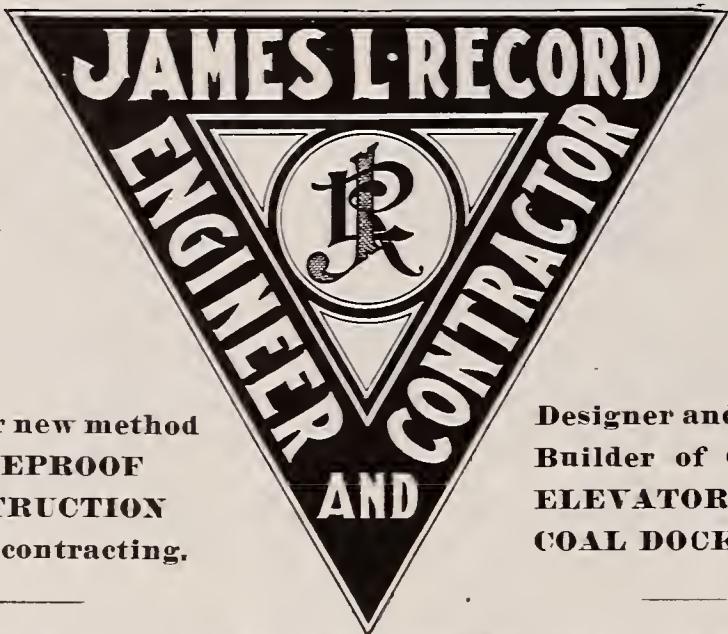
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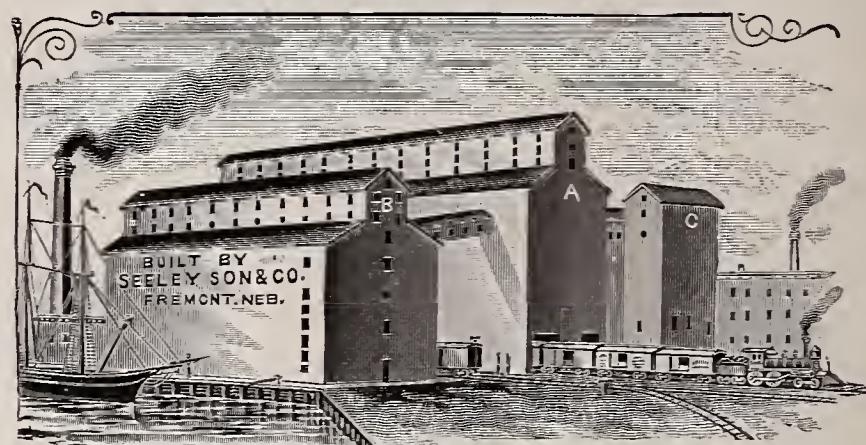
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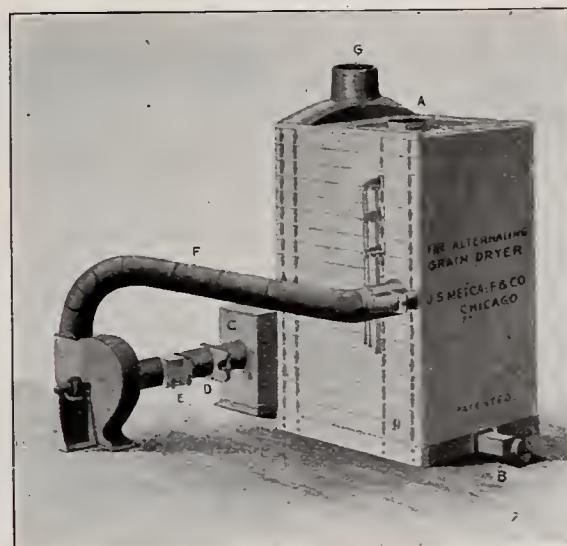
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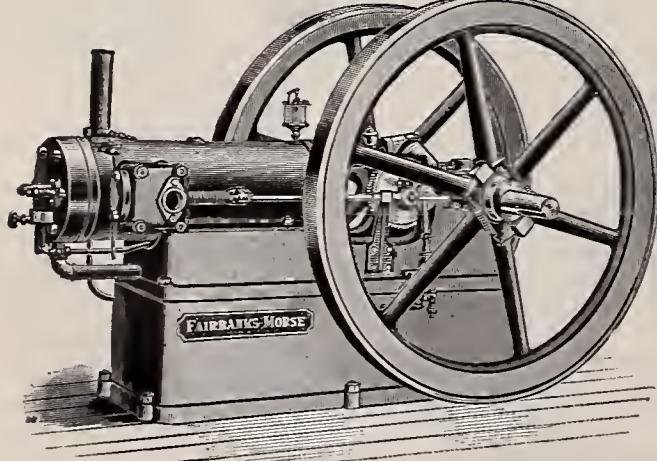
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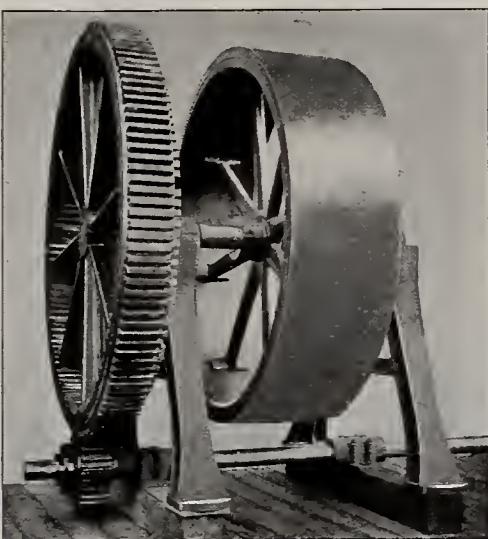


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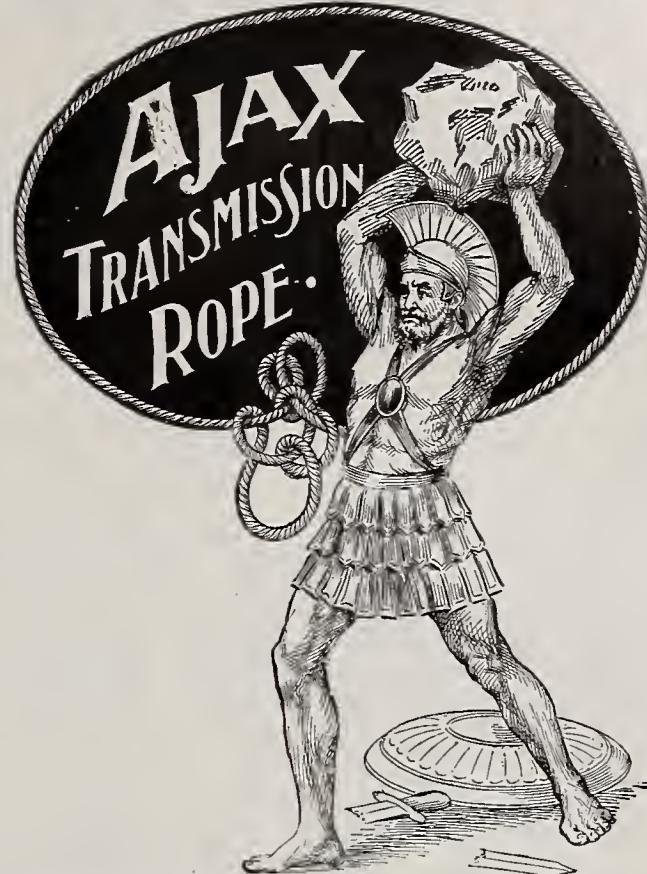
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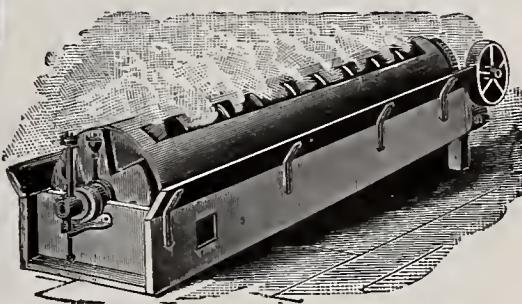
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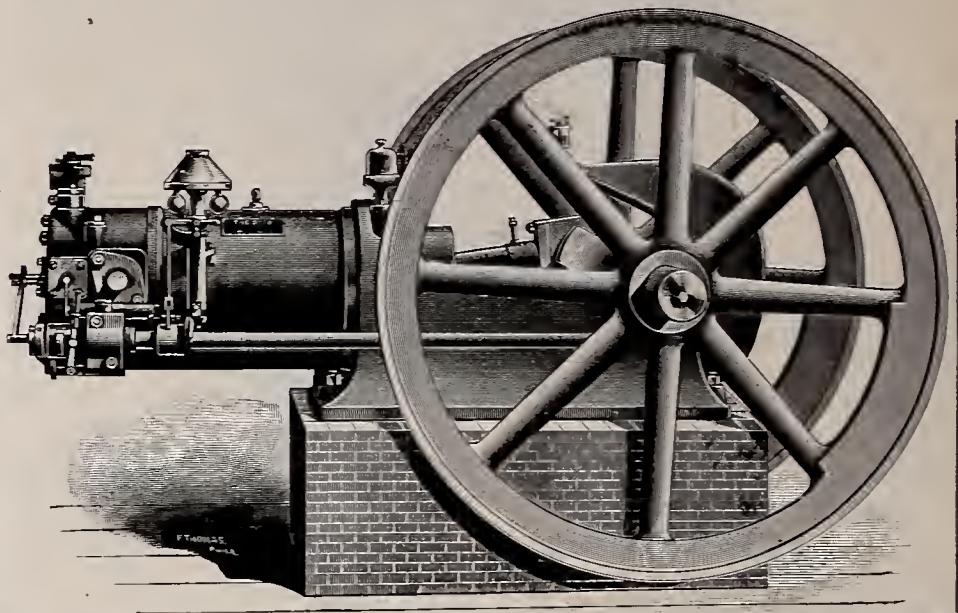
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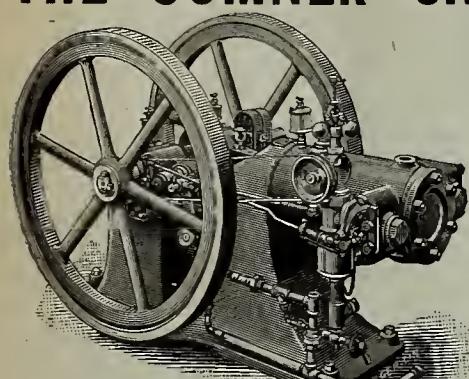
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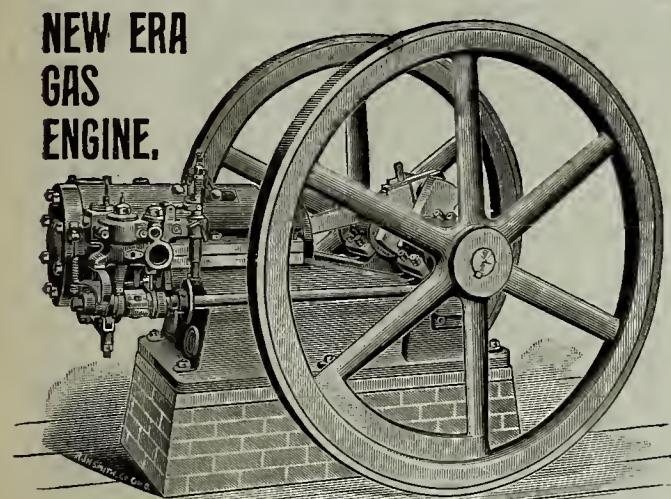
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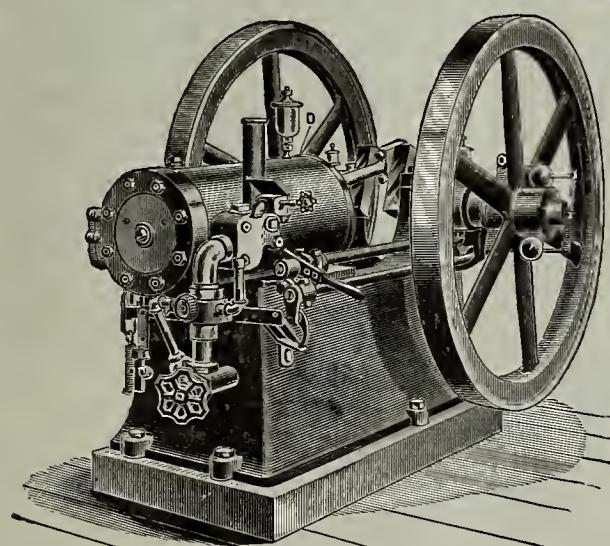
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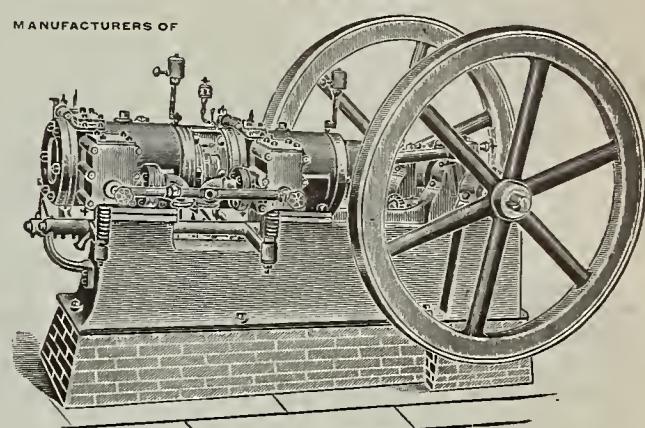
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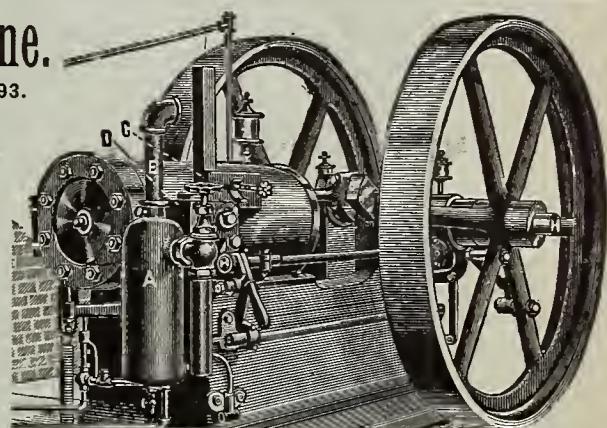
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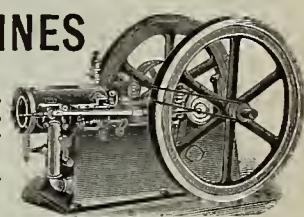
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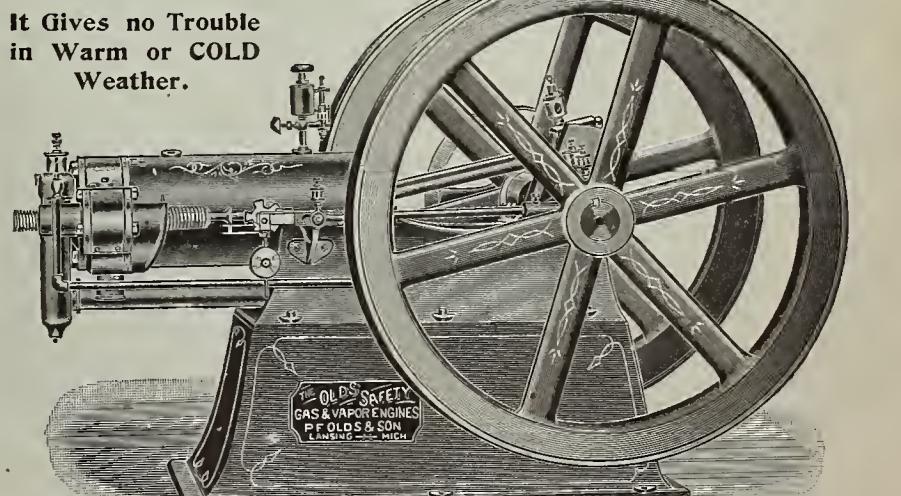
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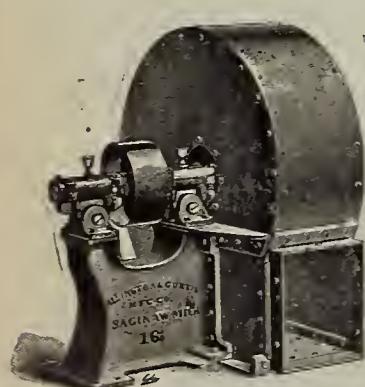
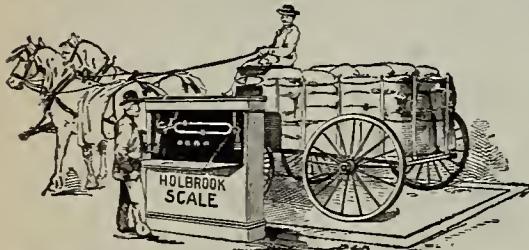
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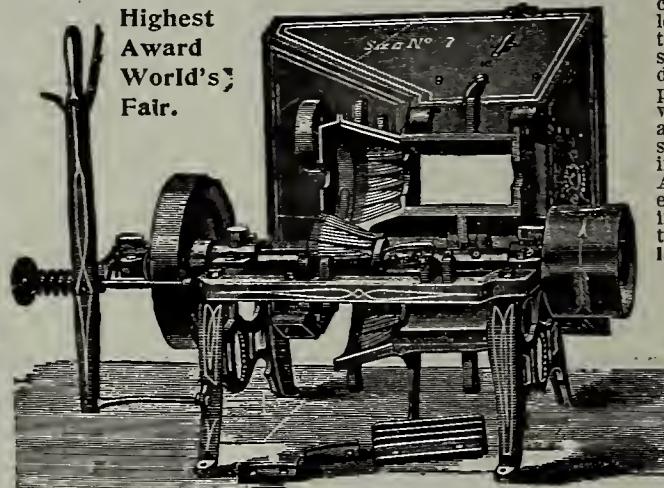
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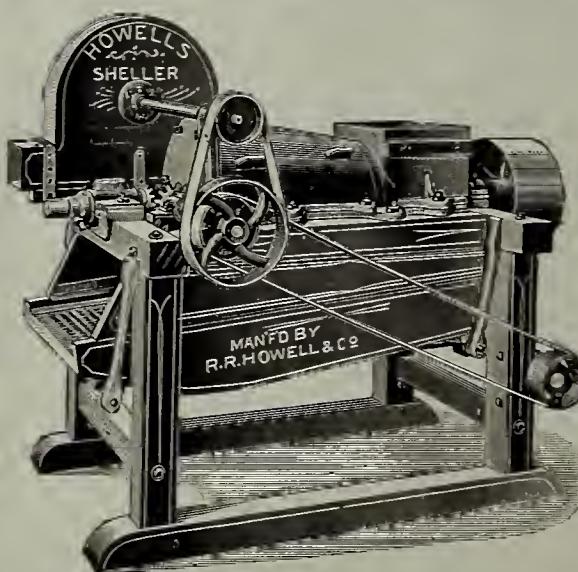
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